ORDER NO.MD0403065C1

A6

Service Manual

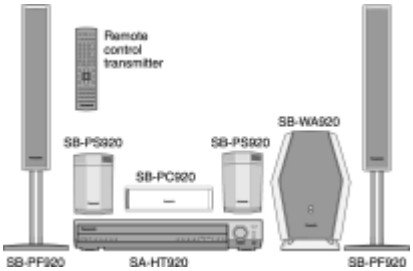
DVD Home Theater Sound System

SA-HT920P

SA-HT920PC

Color

(S).....Silver Type



Specifications

• General

Power Source:	AC 120V, 60Hz
Power consumption:	26 W
Dimensions (W × H × D):	430 × 68 × 432 mm (16-15 / 16 ” × 2-11 / 16 ” × 17 ”)
Mass:	4.1 kg (9.0lbs)
Operating temperature range:	+ 5 to 35 degree
Operating humidity range:	5 to 90 % RH (no condensation)

• Amplifier section

RMS Output Power: Dolby Digital Mode

• Total RMS Dolby Digital mode Power:	1000 W

At 1kHz and total harmonic of 10 %

• Front:	170 W / Channel (6 Ω)
• Center:	260 W / Channel (4 Ω)
• Surround:	70 W / Channel (4 Ω)

At 100Hz and total harmonic of 10 %

• Active subwoofers:	260 W / Channel (4 Ω)

FTC Output Power: Dolby Digital Mode:

• Total FTC Dolby Digital mode Power:

580 W

At 120Hz-20kHz and total harmonic of 1 %

• Front:	100 W / Channel (6 Ω)
• Center:	140 W / Channel (4 Ω)
• Surround:	45 W / Channel (4 Ω)

At 45Hz-120Hz and total harmonic of 1 %

• Subwoofer:	150 W / Channel (4 Ω)

• FM tuner section

Frequency Range:	87.9-107.9MHz (200kHz in step) 87.5-108.0MHz

(100kHz in step)

Sensitivity: 2.5 µ V (IHF)

S / N 26dB 2.2 µ V

Antenna Terminal: 75 Ω (non balance)

• AM / MW tuner section

Frequency Range: 520-1710kHz (10kHz in step)

AM Sensitivity S / N 20dB at 1000kHz: 560 µ V / m

Phone Jack:

Terminal: Stereo 3.5mm (1 / 8 ”) jack

Digital audio input:

Optical digital input: Optical terminal (1 system)

Sampling frequency: 32kHz, 44kHz, 48kHz

• Disc section

Discs played [8 cm (3 ”) or 12 cm (5 ”)]:

(1) DVD-RAM (DVD-VR compatible, JPEG formatted discs)
(2) DVD-Audio
(3) DVD-Video
(4) DVD-R (DVD-Video compatible)
(5) CD-Audio (CD-DA)
(6) Video CD
(7) SVCD (Conforming to IEC62107)
(8) CD-R / CD-RW (CD-DA, Video-CD, SVCD, MP3, WMA, JPEG formatted discs)
(9) MP3 / WMA
• Maximum number of recognizable audio and picture contents and groups:
4000 audio and picture contents and 400 groups
• Compatible compression rate:
MP3: between 32 kbps and 320 kbps
WMA: between 48 kbps and 320 kbps
(10) JPEG
• Exif Ver 2.1 JPEG Baseline files
• Picture resolution: between 320 x 240 and 6144 x 4096 pixels (sub sampling is 4:2:2 or 4:2:0)
(11) HighMAT Level 2 (Audio and Image)

Pick up:

Source of light beam: Semiconductor Laser

Wavelength:

• CD: 785nm

• DVD: 662nm

Audio output (DISC):

Number of channels: 5.1 ch (FL, FR, C, SL, SR, SW)

Audio performance:

Frequency response:

DVD (linear audio): 4 Hz-22 kHz (48 kHz sampling)
4 Hz-44 kHz (96 kHz sampling)

DVD-Audio: 4 Hz-88 kHz (192 kHz sampling)

CD-Audio: 4 Hz-20 kHz

S / N ratio:

CD-Audio: 95 dB

Dynamic range:

DVD (linear audio): 95 dB

CD-Audio: 93 dB

Total harmonic distortion:

CD-Audio: 0.005 %

• Video section

Video system:

Signal system: NTSC

Composite video output:

Output level: 1 Vp-p (75 Ω)

Terminal: Pin jack (1 system)

S-video output:

Y output level: 1 Vp-p (75 Ω)

C output level: NTSC; 0.286 Vp-p (75 Ω)

Terminal S terminal (1 system)

Component video output (480P / 480I):

Y output level:	1 Vp-p (75 Ω)
P_B output level:	0.7 Vp-p (75 Ω)
P_R output level:	0.7 Vp-p (75 Ω)
Terminal:	Pin jack (Y: green, P_B : blue, P_R : red) (1 system)

Power consumption in standby mode:

approx 0.5W

Note:

1. Specifications are subject to change without notice.
   Mass and dimensions are approximate.
2. Total harmonic distortion is measured by the digital spectrum analyzer.

Solder:

This model uses lead free solder (PbF).

system	SC-HT920
Main unit	**SA-HT920**
Front speakers	SB-PF920
Center speaker	SB-PC920
Surround speakers	SB-PS920
Active subwoofer	SB-WA920

MPEG Layer-3 audio decoding technology licensed from Fraunhofer IIS and Thomson multimedia.

Windows Media, and the Windows logo are trademarks, or registered trademarks of Microsoft Corporation in the United States and/or other countries.
WMA is a compression format developed by Microsoft Corporation. It achieves the same sound quality as MP3 with a file size that is smaller than that of MP3.

HighMAT and the HighMAT logo are either trademarks or registered trademarks of Microsoft Corporation in the United States and/or other countries.

■ **Built-in decoders**

You can play discs with these symbols.

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⚠ WARNING

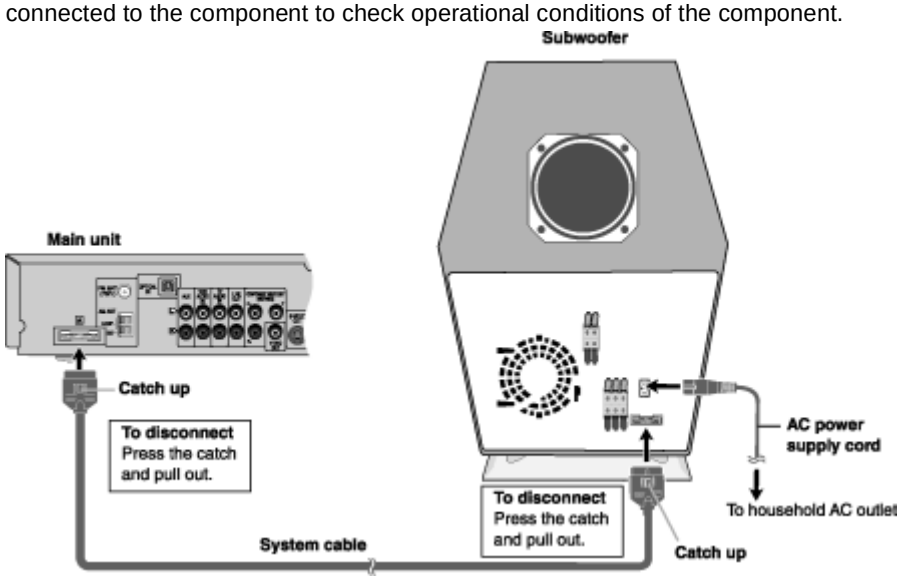
This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to servi
or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Panasonic

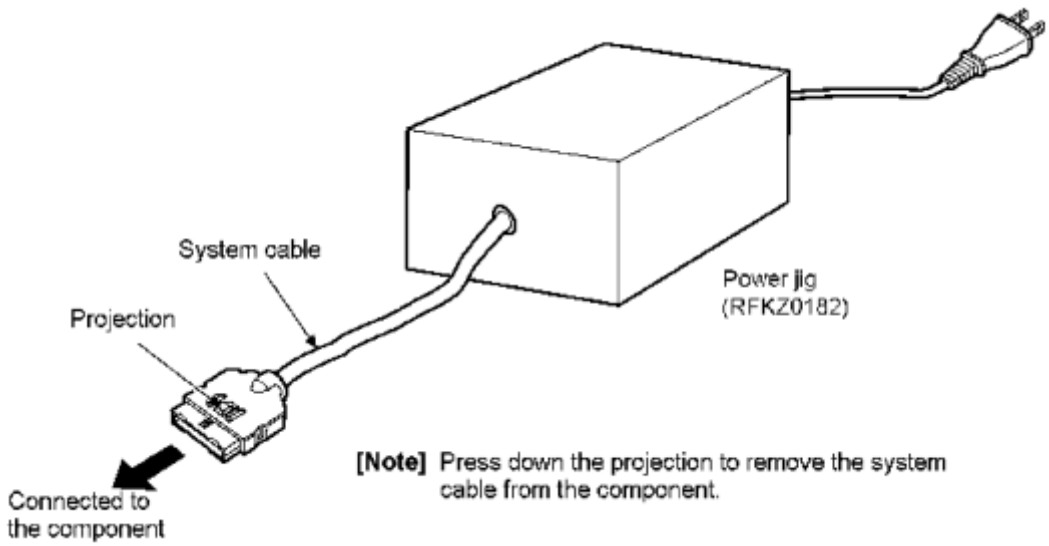
1 Use of Active Subwoofer

1.1 Checking Player when Active Subwoofer is not used

1. This unit uses the active subwoofer to supply the power of the component, and the active subwoofer should be connected to the component to check operational conditions of the component.



2. If the active subwoofer is not available due to repair of the unit, use the following equipment.



Jig product number: RFKZ0182 (110V, 127V, 220V, 230V-240V for overseas domestic use)

2 Safety Precautions

2.1 GENERAL GUIDELINES

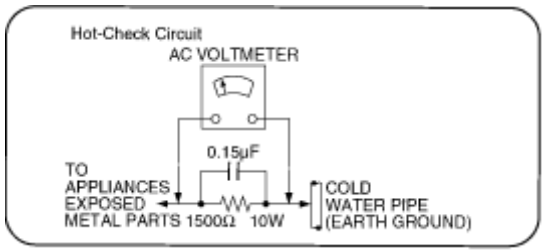
1. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
2. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
3. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

2.1.1 LEAKAGE CURRENT COLD CHECK

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Measure the resistance value, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. When the exposed metallic part has a return path to thechassis, the reading should be between 1MΩ and 5.2MΩ.

   When the exposed metal does not have a return path to the chassis, the reading must be ∞ .

Figure 1



2.1.2 LEAKAGE CURRENT HOT CHECK (See Figure 1 .)

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a 1.5kΩ, 10 watts resistor, in parallel with a 0.15μF capacitors, between each exposed metallic part on the set and a good earth ground such as a water pipe, as shown in Figure 1 .
3. Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet and repeat each of the above measurements.
6. The potential at any point should not exceed 0.75 volts RMS. A leakage current tester (Simpson Model 229 or equivalent) may be used to make the hot checks, leakage current must not exceed 1/2 milliamp. In case a measurement is outsideof the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.

3 Prevention of Electro Static Discharge (ESD) to Electrostatically Sensitive (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistorsand semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by electro static discharge (ESD).

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available dischargingESD wrist strap, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static (ESD protected)" can generate electrical charge sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparableconductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

   Caution

   Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity (ESD)sufficient to damage an ES device).

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are imporant for safety.
These parts are marked by ⚠ in the schematic diagrams, Exploded Views and replacement parts list. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire, or other hazards. Do not modify the original design without permission of manufacturer.

4 Before Repair and Adjustment (Using Active Subwoofer)

Disconnect AC power, discharge Power Supply Capacitors C546~C549 through a 10 Ω, 10 W resistor to ground.
DO NOT SHORT-CIRCUIT DIRECTLY (with a screwdriver blade, for instance), as this may destroy solid state devices.
After repairs are completed, restore power gradually using a variac, to avoid overcurrent.
Current consumption at AC 120 V, 60 Hz in NO SIGNAL mode should be ~ 1000 mA.

5 Protection Circuitry

The protection circuitry may have operated if either of the following conditions are noticed:

- No sound is heard when the power is turned on.
- Sound stops during a performance.

The function of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are

“shorted”, or if speaker systems with an impedance less than the indicated rated impedance of the amplifier are used.

If this occurs, follow the procedure outlines below:

1. Turn off the power.
2. Determine the cause of the problem and correct it.
3. Turn on the power once again after one minute.

Note:

When the protection circuitry functions, the unit will not operate unless the power is first turned off and then on again.

6 Precaution of Laser Diode

CAUTION:

This unit utilizes a laser.

Invisible laser radiation is emitted from the optical pickup lens when the unit is turned on.

Wavelength: 662nm(DVD)/785nm(VCD/CD).

Maximum output radiation power from pickup: 100μW/VDE

1. Do not look directly into the pick up lens.
2. Do not use optical instruments to look at the pick up lens.
3. Do not adjust the preset variable resistor on the pickup lens.
4. Do not disassemble the optical pick up unit.
5. If the optical pick up is replaced, use the manufacturer's specified replacement pick up only.
6. Use of control or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

(Inside of product)

CAUTION!
THIS PRODUCT UTILIZES A LASER.
USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

7 About Lead Free Solder (PbF)

Distinction of PbF PCB: PCBs (manufactured) using lead free solder will have a Pbf stamp on the PCB.

Caution:

- Pb free solder has a higher melting point than standard solder; Typically the melting point is 50 - 70°F (30 - 40°C) higher. Please use a high temperature soldering iron. In case of the soldering iron with temperature control,please set it to 700 ± 20°F (370 ± 10°C).
- Pb free solder will tend to splash when heated too high (about 1100°F/ 600°C).

When soldering or unsoldering, please completely remove all of the solder on the pins or solder area, and be sure to heat the soldering points with the Pb free solder until it melts enough.

8 General Description

8.1 Operating instructions

8.2 Disc information

9 Accessories

Remote control

AM loop antenna

FM indoor antenna

Video cable

Large screws

5 Speaker cables (×5)

AC power supply cord

Antenna plug

System cable

Small screws

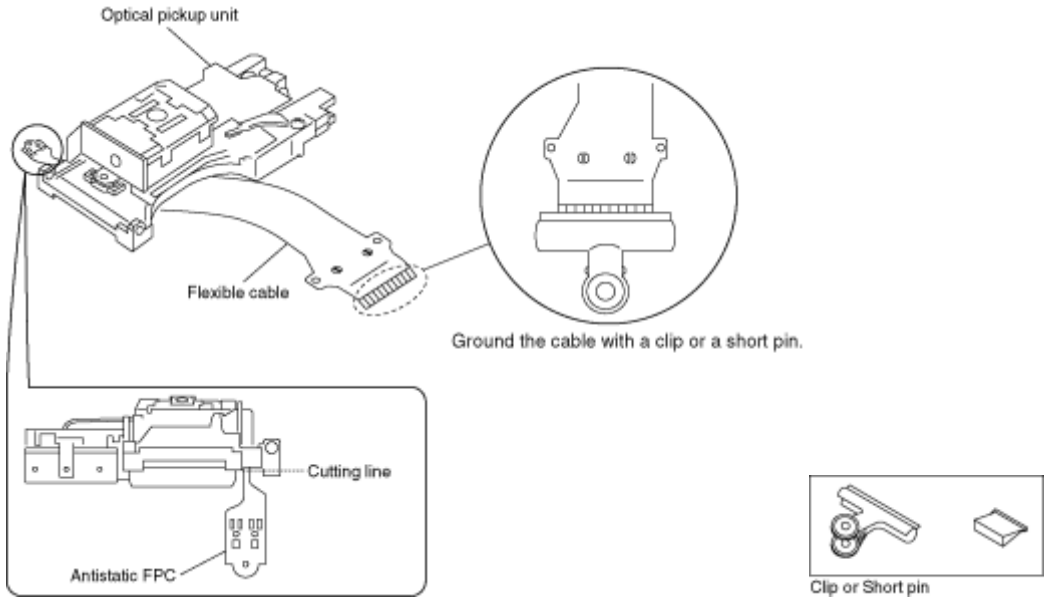
10 Handling Precautions for Optical Pickup Unit

The laser diode in the optical pickup unit may brake down due to static electricity of clothes or human body. Use due caution to electrostatic breakdown when servicing and handling the laser diode.

10.1 Cautions to Be Taken in Handling the Optical Pickup Unit

The laser diode in the optical pickup unit may be damaged due to electrostatic discharge generating from clothes or human body. Use due caution to electrostatic discharge damage when servicing the laser diode.

1. Do not give a considerable shock to the optical pickup unit as it has an extremely high-precise structure.
2. To prevent the laser diode from the electrostatic discharge damage, the flexible cable of the optical pickup unit removed from the PCB should be short-circuited with a short pin or a clip.
3. The flexible cable may be cut off if an excessive force is applied to it. Use caution when handling the flexible cable.
4. The antistatic FPC is connected to the new optical pickup unit. After replacing the optical pickup unit and connecting the flexible cable, cut off the antistatic FPC.



10.2 Cautions to Be Taken When Replacing the Optical Pickup

The flexible cable of the optical pickup unit which was supplied as a component is equipped with a short clip to prevent the laser diode from being damaged due to electrostatic discharge. Remove the short clip before connecting the flexible cableand make sure that the short land is open. (If the flexible cable is short-circuited, remove the solder.)

10.3 Grounding for electrostatic breakdown prevention

Some devices such as the DVD player use the optical pickup (laser diode) and the optical pickup will be damaged by static electricity in the working environment. Proceed servicing works under the working environment where grounding

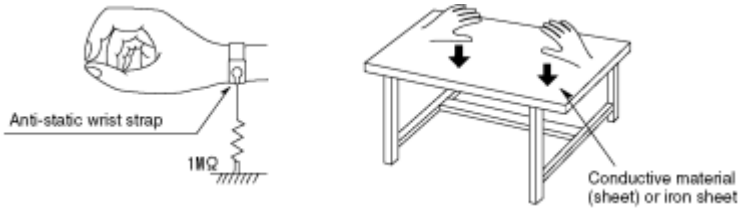
works is completed.

10.3.1 Worktable grounding

1. Put a conductive material (sheet) or iron sheet on the area where the optical pickup is placed, and ground the sheet.

10.3.2 Human body grounding

1. Use the anti-static wrist strap to discharge the static electricity form your body.



11 Disassembly and Main Component Replacement Procedures

“ATTENTION SERVICER”

Some chassis components may have sharp edges.

Be careful when disassembling and servicing.

1. **This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.**
2. **For assembly after operation checks or replacement, reverse the respective procedures.**
   Special reassembly procedures are described only when required.
3. **Select items from the following index when checks or replacement are required.**

- Disassembly the Top Cabinet
- Disassembly the Front Panel
- Disassembly the Tray Assembly
- Removal of the Tray Base Guide (L) and Tray Base Guide (R)
- Removal of the Rotary Tray
- Removal of the Open Lock Gear
- Removal of the Close Lock Gear
- Removal of the Tray Motor P.C.B.and Sensor P.C.B.
- Removal of the CD Traverse Unit
- Removal of the Pulley Gear
- Removal of the Loading Motor P.C.B.
- Removal of the Drive Gear (A) & (B)
- Disassembly the Fixed Plate, Magnet and Clamper
- Removal of the Cam Gear & Support Piece
- Removal of the Slide Plate (L) & (R) and Changer Lever
- Assembly of Tray Base

11.1 Disassembling the Top Cabinet

Step 1 Remove 7 screws.

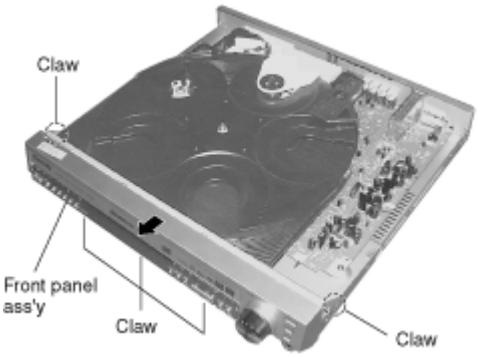
Step 2 Remove the top cabinet in the direction of arrow.

11.2 Disassembling the Front Panel

- Follow the (Step 1) - (Step 2) of Item 11.1.

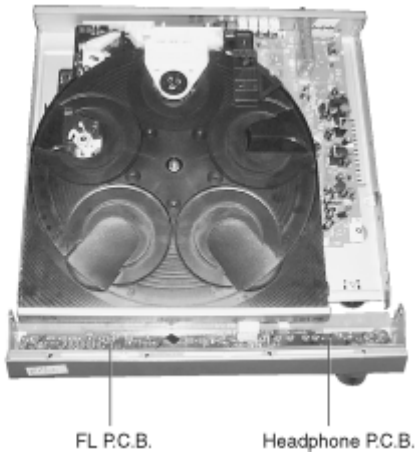
Step 1 Pull the front panel ass’y in both direction of arrow to unlock the claws of the chassis ass’y.

Step 2 Remove the front panel ass’y in the direction of arrow.



Step 3 Pull out the FFC from connectors (CN6801 & CN6901).

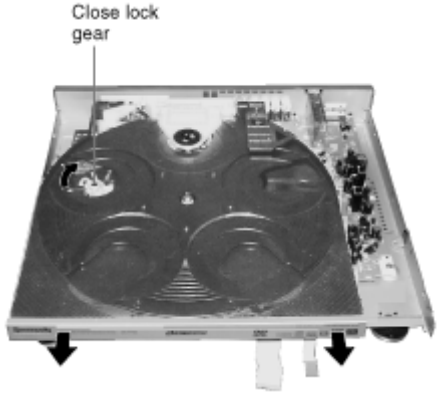
- Checking of Headphone P.C.B. and FL P.C.B.



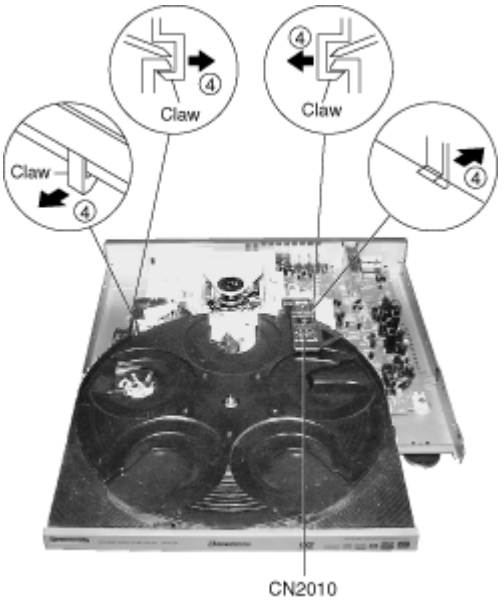
11.3 Disassembling the Tray Assembly

- Follow the (Step 1) - (Step 2) of Item 11.1.
- Follow the (Step 1) - (Step 4) of Item 11.2.

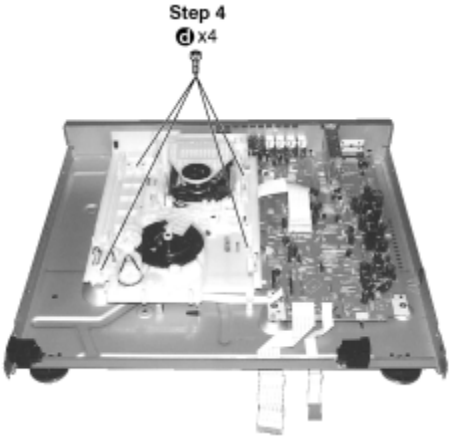
Step 1 Keep the close lock gear pressed in clockwise, move the tray assembly in the direction of the arrow.



Step 2 Hold close lock gear, push and release the 4 claws in the direction of arrow, and then remove the tray assembly.

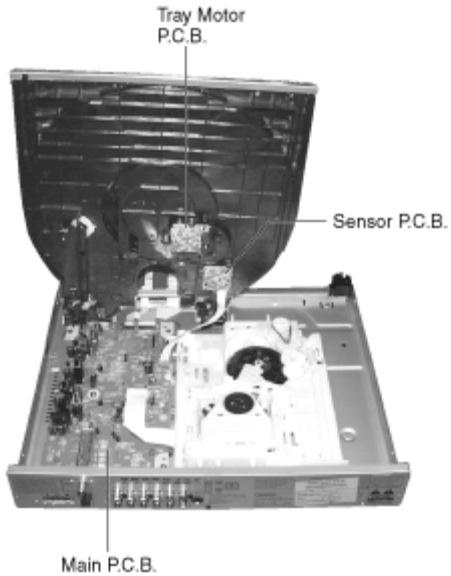


Step 3 Pull out FFC CN6002.



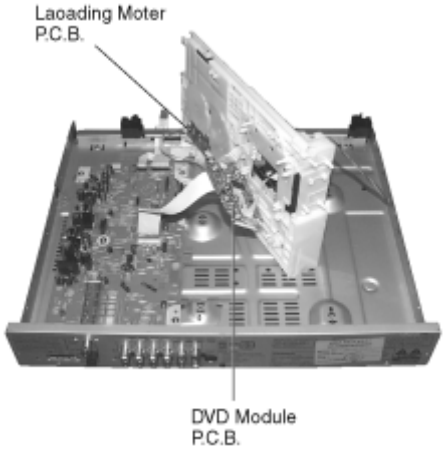
Step 4 Remove 4 screws.

- Checking of Main P.C.B., Tray Motor and Sensor P.C.B.



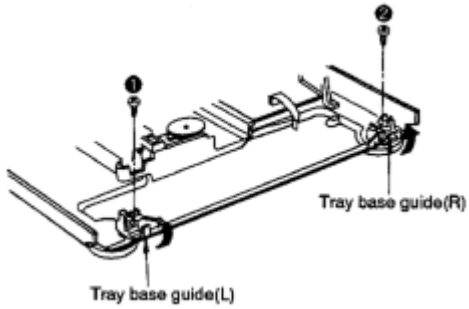
- Checking of Loading Motor P.C.B. and DVD Module P.C.B.

  Step 5 Upset base assembly in vertical position.



11.4 Removal of the Tray Base Guide (L) and Tray Base Guide (R)

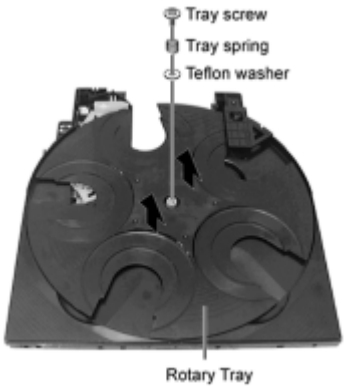
- Follow the (Step 1) - (Step 2) of Item 11.1.
- Follow the (Step 1) - (Step 4) of Item 11.2.
- Follow the (Step 1) - (Step 5) of Item 11.3.



Step 1 Remove the 2 screws.
Step 2 Remove the tray base guide (L) and tray guide (R) in the direction of arrow.

11.5 Removal of the Rotary Tray

- Follow the (Step 1) - (Step 2) of Item 11.1.
- Follow the (Step 1) - (Step 4) of Item 11.2.
- Follow the (Step 1) - (Step 5) of Item 11.3.

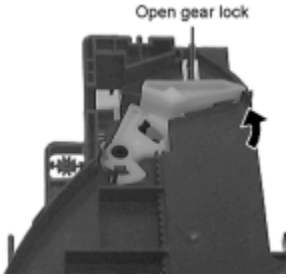


Step 1 Remove tray screw, tray spring and teflon washer.
Step 2 Remove rotary tray.

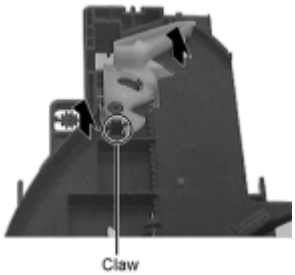
11.6 Removal of the Open Lock Gear

- Follow the (Step 1) - (Step 2) of Item 11.1.

- Follow the (Step 1) - (Step 4) of Item 11.2.
- Follow the (Step 1) - (Step 5) of Item 11.3.
- Follow the (Step 1) - (Step 2) of Item 11.5.



Step 1 Rotate open lock gear in the direction of arrow. (Anti-clockwise)

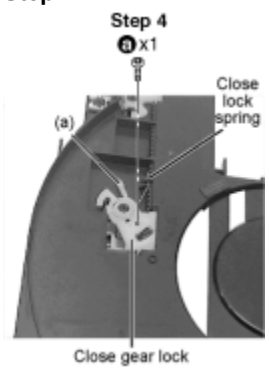


Step 2 Release claw of open lock gear, remove open lock gear in the direction of arrow.

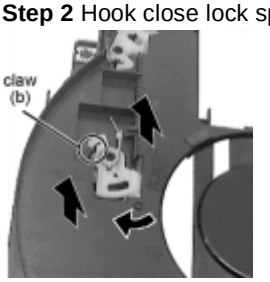
11.7 Removal of the Close Lock Gear

- Follow the (Step 1) - (Step 2) of Item 11.1.
- Follow the (Step 1) - (Step 4) of Item 11.2.
- Follow the (Step 1) - (Step 5) of Item 11.3.
- Follow the (Step 1) - (Step 2) of Item 11.5.

Step 1 Remove 1 screw.



Step 2 Hook close lock spring to claw (a).



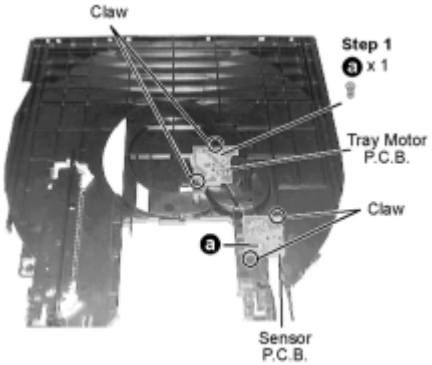
Step 3 Rotate close lock gear to direction of arrow, press claw (b) and pull out close lock gear.

11.8 Removal of the Tray Motor P.C.B. and Sensor P.C.B.

- Follow the (Step 1) - (Step 2) of Item 11.1.

- Follow the (Step 1) - (Step 4) of Item 11.2.
- Follow the (Step 1) - (Step 5) of Item 11.3.

Step 1 Remove 2 screws.



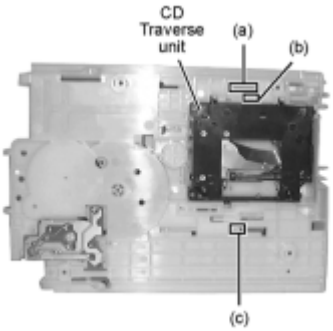
Step 2 Release 4 claws at Tray Motor P.C.B. and Sensor P.C.B.

11.9 Removal of the CD Traverse Unit

- Follow the (Step 1) - (Step 2) of Item 11.1.
- Follow the (Step 1) - (Step 4) of Item 11.2.
- Follow the (Step 1) - (Step 5) of Item 11.3.

Step 1 Rotate cam gear anti-clockwise. (Align at position (A) as marking on gear with arrow)

Step 2 Flip the base mecha unit in vertical position.

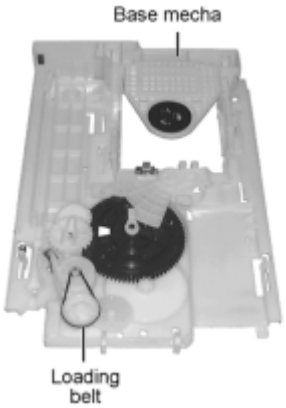


Step 3 Press upward (a), push backward (b) and press to left (c) to release CD traverse unit.

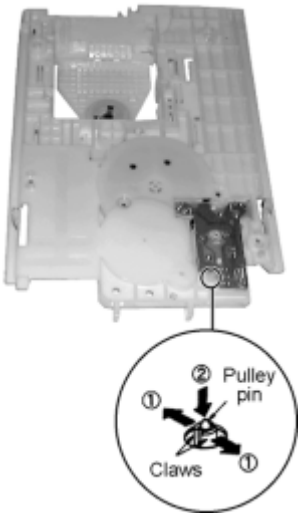
11.10 Removal of the Pulley Gear

- Follow the (Step 1) - (Step 2) of Item 11.1.
- Follow the (Step 1) - (Step 4) of Item 11.2.
- Follow the (Step 1) - (Step 5) of Item 11.3.

Step 1 Remove of the loading belt.



Step 2 Flip the base mecha.



Step 3 Release the 2 claws in the direction of arrow (1), and then push the pulley pin in the direction of arrow (2).

11.11 Removal of the Loading Motor P.C.B.

- Follow the (Step 1) - (Step 2) of Item 11.1.
- Follow the (Step 1) - (Step 4) of Item 11.2.
- Follow the (Step 1) - (Step 5) of Item 11.3.

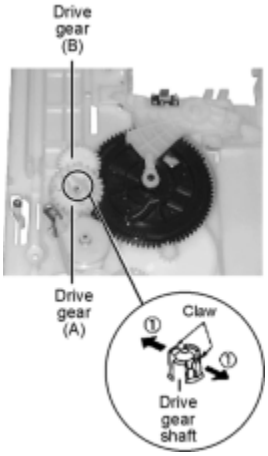
Step 1 Remove 2 screws.

Step 2 Remove Loading Motor P.C.B.

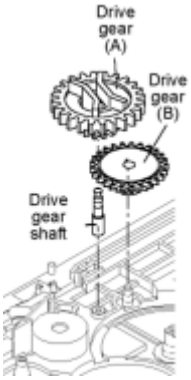
11.12 Removal of the Drive Gear (A) & (B)

- Follow the (Step 1) - (Step 2) of Item 11.1.
- Follow the (Step 1) - (Step 4) of Item 11.2.
- Follow the (Step 1) - (Step 5) of Item 11.3.

Step 1 Release the claw in the direction of arrow (1), and then push drive gear shaft up.



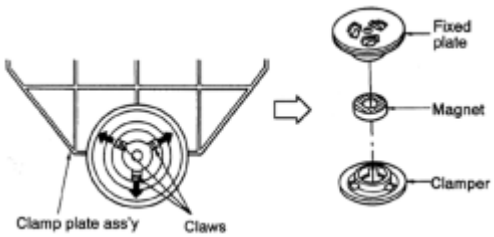
Step 2 Remove Drive Gear (A) and Drive Gear (B).



11.13 Disassembling the Fixed Plate, Magnet and Clamper

- Follow the (Step 1) - (Step 2) of Item 11.1
- Follow the (Step 1) - (Step 4) of Item 11.2.
- Follow the (Step 1) - (Step 5) of Item 11.3.

Step 1 Release 3 claws in the direction of arrow.

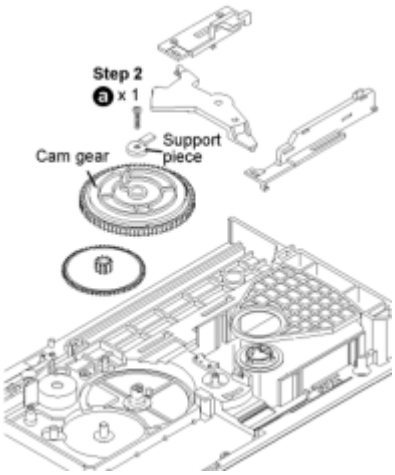


11.14 Removal of the Cam Gear & Support Piece

- Follow the (Step 1) - (Step 5) of Item 11.3.

Step 1 Rotate (A) in cam gear anti-clockwise.

Step 2 Remove 1 screw and support piece.

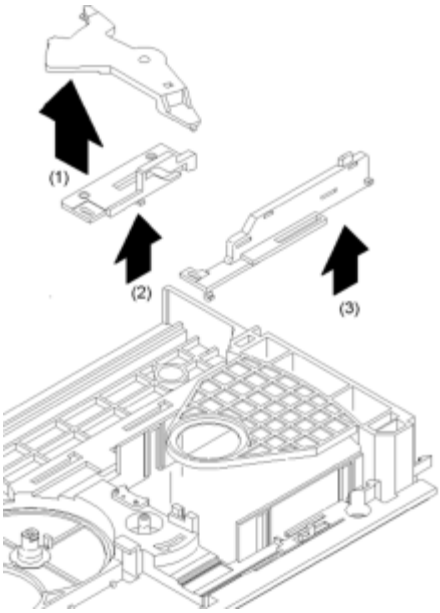


11.15 Removal of the Slide Plate (L) & (R) and Change Lever

- Follow the (Step 1) - (Step 5) of Item 11.3.

Step 1 Press the claw and push the Slide Plate (L) up.

Step 2 Remove slide plate (L) & (R) and change lever as arrow shown.



11.16 Assembly of Tray Base

Step 1 Rotate cam gear anti-clockwise. Align at position (C) as marking on gear with arrow.

Step 2 Make sure drive gear (A) at vertical position.

Step 3 Push tray base to the direction of arrow shown.

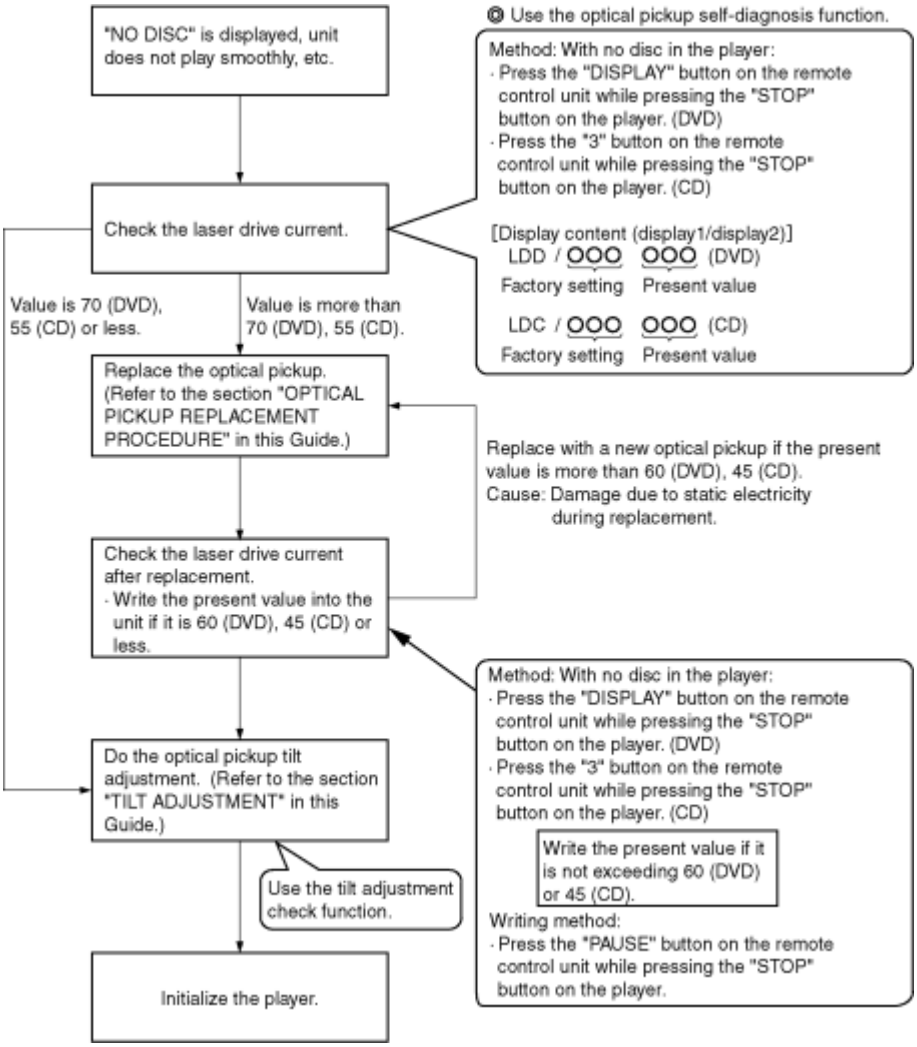
12 DVD-Optical Pick-up Self-Diagnosis and Replacement Procedure

12.1 Optical Pickup Breakdown Diagnosis

The optical pickup self-diagnosis function and tilt adjustment check function have been included in this unit. When repairing, use the following procedure for effective Self-diagnosis and tilt adjustment. Be space sure to use the self-diagnosisfunction before replacing the optical pickup when "NO DISC" is displayed. As a guideline, you should replace the optical pickup when the value of the laser drive current is more than 55.

Note:

Press the power button to turn on the power, and check the value within three minutes before the unit warms up. (Otherwise, the result will be incorrect.)


"NO DISC" is displayed, unit does not play smoothly, etc.
Check the laser drive current.
Value is 70 (DVD), 55 (CD) or less.
Value is more than 70 (DVD), 55 (CD).
Replace the optical pickup. (Refer to the section "OPTICAL PICKUP REPLACEMENT PROCEDURE" in this Guide.)
Check the laser drive current after replacement.
· Write the present value into the unit if it is 60 (DVD), 45 (CD) or less.
Do the optical pickup tilt adjustment. (Refer to the section "TILT ADJUSTMENT" in this Guide.)
Use the tilt adjustment check function.
Initialize the player.
◎ Use the optical pickup self-diagnosis function.
Method: With no disc in the player:
· Press the "DISPLAY" button on the remote control unit while pressing the "STOP" button on the player. (DVD)
· Press the "3" button on the remote control unit while pressing the "STOP" button on the player. (CD)
[Display content (display1/display2)]
LDD / OOO OOO (DVD)
Factory setting Present value
LDC / OOO OOO (CD)
Factory setting Present value
Replace with a new optical pickup if the present value is more than 60 (DVD), 45 (CD).
Cause: Damage due to static electricity during replacement.
Method: With no disc in the player:
· Press the "DISPLAY" button on the remote control unit while pressing the "STOP" button on the player. (DVD)
· Press the "3" button on the remote control unit while pressing the "STOP" button on the player. (CD)
Write the present value if it is not exceeding 60 (DVD) or 45 (CD).
Writing method:
· Press the "PAUSE" button on the remote control unit while pressing the "STOP" button on the player.

12.2 Service Mode Table 1

The service modes can be activated by pressing various button combination on the player and remote control unit.

Player buttons	Remote control unit buttons	Application	Note
STOP	0	Error code display	(Refer to the item, “12.3. DVD Self Diagnostic Function-Error Code ”).
	5	Tilt adjustment	Refer to the item “15.4. Optical adjustment”).
	6	Area number and broadcasting system check	
	7	Built-in program version check	
	DISPLAY	DVD laser drive current check	Refer to the item “12.1. Optical Pickup Breakdown Diagnosis ”.
	3	CD laser drive current check	
	PAUSE	Writing of laser drive current value after replacement of optical pickup (Do use this function only when optical pickup is replaced.)	
	≧= 10	Initialization of the player (factory setting is restored.) Used after replacement of micro-computer and its peripherals and printed circuit board.	

12.3 DVD Self Diagnostic Function-Error Code

Error Code	Error Content	Additional error explanation
	U, H error	
U11	Focus error	
H01	Tray loading error	
H02	Spindle servo error	(Spindle servo, DSC (IC3001) SP motor, CLV servo error)
H03	Traverse servo error	
H04	Tracking servo error	
H05	Seek error	
H06	Power error	Cannot switch off the power because of the panel and system computer communication error
H07	Spindle motor drive error	
	DSC related	
F500	DSC error	DSC (IC3001) stops in the occurrence of servo error (starup, focus error, etc.)
F501	DSC not Ready	DSC-system computer communication error (Communication failure caused by idling of DSC)
F502	DSC Time out error	Similar disposal as F500
F503	DSC communication Failure	Communication error (result error occurred although communication command was sent)
F504	Error adjusting DSC data slice offset	
F505	DSC Attention error	Similar disposal as F500
F506	Invalid media	Disc is flipped over, TOC unreadable, incompatible disc
	ODC related	
F600	Access failure to management information caused by demodulation error	Operation stopped because navigation data is not accessible caused by the demodulation defect
F601	Indeterminate sector ID requested	Operation stopped caused by the request to access abnormal ID data
F602	Access failure to LEAD-IN caused by demodulation error	LEAD IN data unreadable
F603	Access failure to KEYDET caused by demodulation error	Access failure to CSS data of disc
F610	ODC abnormality	No permission for command execution
F611	6626 QCODE don’t read Error	Access failure to seek address in CD series
F612	No CRC OK for a specific time	Access failure to ID data in DVD series
F620	Laser safeguard: high temperature condition	
F621	Laser safeguard: circuit failure condition	
F630	No reply to KEY DET enquiry	(for internal use only)
F631	CPPM KEY DET is not available till the FILE terminal	(CPPM file system is unreadable caused by scratches)
F632	CPPM KEY DET is not available	Been revoked or falsified

	Disc code	
F103	Illegal highlight Position	Big possibility of disc specification violation during highlight display
	HIC Error	
F4FF	Force initialize failure (time out)	
	Micro computer error	
F700	MBX overflow	When replying message to disc manager
F701	Message command does not end	Next message is sent before replying to disc manager
F702	Message command changes	Message is changed before it is sent as a reply to disc manager
F880	Task number is not appropriate	Message coming from a non-existing task
F890	Sending message when message is being sent to AV task	Sending message to AV task
F891	Message couldn't be sent to AV task	Begin sending message to AV task
F893	FROM falsification	
F894	EEPROM abnormality	
F895	Language area abnormality	Firm version agreement check for factory preset setting failure prevention
F896	No existence model	Firm version agreement check for factory preset setting failure prevention
F897	Initialize is not completed	Initialize completion check for factory preset setting failure prevention
F898	Disagreement of hardware and software	Unsuitable combination of AV DECORDER, SDRAM and FLASH ROM (firmware)
F8A0	Message command is not appropriate	Begin sending message to AV task

Note:

An error code will be canceled if a power supply is turned OFF.

*1: CPPM is the copy guard function beforehand written in the disk for protection of copyrights.

12.4 Last Error Code saved during NO PLAY

Error code	Error Content	System computer	Setting task	System computer internal error code
F0BF	6) Cannot playback because physical layer is not recognizable	PCND_NOPLAY PHYSICAL 0x50	DriveManager	0xDOBF
F0C0	8) DVD: Cannot playback because it is not DVD Video/Audio/VR	PCND_NOPLAY VIDEO 0x70	DiscManager	0xDOC0
F0C1	9) DVD: Prohibited by the restricted region code	PCND_NOPLAY RCD 0x80	DiscManager	0xDOC1
F0C2	A) DVD: PAL restricted playback	PCND_NOPLAY PAL 0x90	DiscManager	0xDOC2
F0C3	B) DVD: Parental lock setting prohibits the playback of the entire title	PCND_NOPLAY PTL 0xA0	DiscManager	0xDOC3
F0C4	C) VCD: Prohibited because it is in PHOTO CD format	PCND_NOPLAY PHOTO CD 0xB0	DiscManager	0xDOC4
F0C5	VCD/CD: Prohibited because it is CDROM without CD-DA	PCND_NOPLAY CDROM 0xC0	DiscManager	0xDOC5

12.5 Service mode table 2

Pressing various button combinations on the player and remote control unit can activate the service modes.

Item	Player mode and button combination	Function	Display	Cancellation method
Jitter check	In STOP (no disc) mode, press STOP button on the player, and "5" button on the remote control unit.	Jitter check Jitter rate is measured and displayed. Measurement is repeatedly done in the cycle of one second. Read error counter starts from zero upon mode setting. When target block data failed to be read out, the counter advances by one increment. When the failure is caused by minor error, it may be corrected when retried to enable successful reading. In this case, the counter advances by one. When the error persists even after retry, the counter may jump by two or more.	J _xxx/yyy_zz (display1/display2) Focus drive value Read error counter Jitter rate Jitter check mode Jitter rate is shown in decimal notation to one place of decimal. Focus drive value is shown in hexadecimal notation.	Press STOP or OPEN button.
Error code check	In STOP (no disc) mode, press STOP button on the player, and "0" button on the remote control unit. " With pointing of cursor up and down on display	Error code check The latest error code stored in EEPROM is displayed.	Error code (play_err) is expressed in the following convention. Error code = 0 x DAXX is expressed: → DVDnn UXX Error code = 0 x DBXX is expressed: → DVDnn HXX Error code = 0 x DXXX is expressed: → DVDnn FXXX Error code = 0 x 0000 is expressed: → DVDnn F— " "xx" denotes the error code.	Cancelled automatically 5 seconds later.
Initial setting of laser drive current	In STOP (no disc) mode, press STOP button on the player, and PAUSE button on the remote control unit.	Initial setting of laser drive currentInitial current value for each of DVD laser and CD laser is separately saved in EEPROM.	LDO_/034_028 (display1/display2) CD laser current measurement DVD laser current measurement Laser current measurement mode The value denotes the current in decimal notation. The above example shows the initial current is 34mA and 28mA for DVD laser and CD laser respectively when the laser is switched on.	Cancelled automatically 5 seconds later.
DVD laser drive current measurement	In STOP (no disc) mode, press STOP button on the player, and DISPLAY button on the remote control unit.	DVD laser drive current measurement ·DVD laser drive current is measured and the result is displayed together with the initial value stored in EEPROM. After the measurement, DVD laser emission is kept on. It is turned off when POWER key is switched off. (It is also turned off when POWER button on the player is switched off.)	LDD_/034_032 (display1/display2) Measured current Initial current stored in EEPROM DVD laser current measurement mode The value denotes the current in decimal notation. The above example shows the initial current is 34mA and the measured value is 32mA.	Cancelled automatically 5 seconds later.
ADSC internal RAM data check	In STOP (no disc) mode, press STOP button on the player, and "1" button on the remote control unit.	ADSC internal RAM data check ·ADSC internal RAM data is read out and displayed.	OFA_6901 RAM data for specified address Address The value is shown in hexadecimal notation. The above example shows the data in ADSC address OFAh is 6901h.	Press STOP or PLAY button.
CD laser drive current measurement	In STOP (no disc) mode, press STOP button on the player, and "3" button on the remote control unit.	CD laser drive current measurement CD laser drive current is measured and the result is displayed together with the initial value stored in EEPROM. After the measurement, CD laser emission is kept on. It is turned off when POWER key is switched off. (It is also turned off when POWER button on the player is switched off.)	LDC_/028_026 (display1/display2) Measured current Initial current stored in EEPROM CD laser current measurement mode The value denotes the current in decimal notation. The above example shows the initial current is 28mA and the measured value is 26mA.	Cancelled automatically 5 seconds later.

Item	Player mode and button combination	Function	Display	Cancellation method
Version display	In STOP (no disc) mode, press STOP button on the player, and "7" button on the remote control unit.	Version display	srrr/xxyzzz (display1/display2) System controller release number System controller model number System controller generation Panel controller release number Panel controller model number	Cancelled automatically 5 seconds later.
Initialization	In STOP (no disc) mode, press STOP button on the player , and ≧10 button on the remote control unit.	Initialization User settings are cancelled and player is initialized to factory setting.	--INIT--	———
Region display	In STOP (no disc) mode, press STOP button on the player, and "6" button on the remote control unit.	Region display	w__xy__zzz Panel controller jumper information N: NTSC / 6: PAL60 N: noPAL / P: PAL Region No.	Cancelled automatically 5 seconds later.
Region and syscon version display	In STOP (no disc) mode, press STOP button on the player, and "8" button on the remote control unit.	Region and syscon display	w_xxyzzz System controller version Destination System controller generation Region	Cancelled automatically 5 seconds later.
Communication error display	In STOP (no disc) mode, press STOP button on the player, and "MENU" button on the remote control unit.	Displays frequency of communication errors between system control IC and mechanism control IC during DVD module.	ER_02_30	Cancelled automatically 5 seconds later.

Item	Player mode and button combination	Function	Display	Cancellation method
Timer 1 check	In STOP (no disc) mode, press STOP button on the player, and "▲" button on the remote control unit.	Timer 1 check Laser operation timer Operation time is measured separately for DVD laser and CD laser.	T1_1234/5678 (display1/display2) Shown to the left is DVD laser time, and to the right CD laser time. Time is shown in 4 digits of decimal notation in a unit of 10 hours. "0000" will follow "9999".	Cancelled automatically 5 seconds later.
Timer 1 reset	While displaying Timer 1 data, press STOP button on the "▼" button on the remote control unit.	Timer 1 reset Laser operation timer Operation time of both DVD laser and CD laser is reset all at once.	T1_0000/0000 (display1/display2)	Cancelled automatically 5 seconds later.
Timer 2 check	In STOP (no disc) mode, press STOP button on the player, and " ▶ " button on the remote control unit.	Timer 2 check Spindle motor operation timer	T2_12345 Time is shown in 5 digits of decimal notation in a unit of 10 hours. "00000" will follow "99999".	Cancelled automatically 5 seconds later.
Timer 2 reset	While displaying Timer 2 data, press STOP button on the player and " ◀ " button on the remote control unit.	Timer 2 reset Spindle motor operation timer	T2_00000	Cancelled automatically 5 seconds later.

12.6 Sales demonstration lock function

This function prevents discs from being lost when the unit is used for sales demonstrations by disabling the disc eject function. "LOCKED" is displayed on the unit, and ordinary operation is disabled.

12.6.1 Setting

- **Prohibiting removal of disc**
  1. Select the DVD/CD function.
  2. Press and hold down the ■ button on the player and the power button on the remote controller unit for at least three seconds. (The message, "___LOCKED_" appearswhen the function is activated.)

Note:

OPEN/CLOSE ⏏ , DISC CHECK and DISC CHANGE buttons are invalid and the player displays "___LOCKED_" while the lock function mode is entered.

- **Prohibiting operation of selector and disk**
  1. Select the DVD/CD function.
  2. Press and hold down the ▶ button on the player and the power button on the remote controller unit for at least three seconds. (The message, "___LOCKED_" appearswhen the function is activated.)

Note:

The following buttons are invalid and the player displays "___LOCKED_" while the lock function mode is entered.

Player	⏏ , ■ , ⏸ , SELECTOR, ⏭ , ⏮ , VOLUME KNOB, DISC CHECK, DISC CHANGE, DISC1-DISC5
Remote controller unit	SLEEP, REPEAT, 0~9, ≧10 RETURN, TOP MENU, ■ , ⏸ , ⏮ , ⏭ , ◀◀ , ▶▶ , POSITION MEMORY, TUNER/BAND, D.MIX, CH SELECT/ TEST, SET UP/ MUTING, DISPLAY, GROUP, TV, VCR/ AUX, QUICK REPLAY, SUBTITLE, FL DISPLAY, CH & VOLUME

12.6.2 Cancellation

The lock can be cancelled by the same procedure as used in setting. ("UNLOCK" is displayed on cancellation. Disconnecting the power cable from power outlet does not cancel the lock.)

12.7 Handling After Completing Repairs

Use the following procedure after completing repairs.

12.7.1 Method

Confirm that the power is turned on:

1. Press the "OPEN/CLOSE" button to close the tray.
2. Press the "POWER" button to turn off the power.
3. Disconnect the power plug from the outlet.

12.7.2 Precautions

Do not disconnect the power plug from the outlet with the tray still open, then close the tray manually.

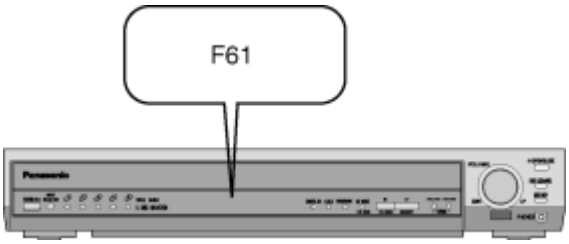
13 Self-Diagnosis Function

13.1 Automatic Displayed Error Codes

13.1.1 Automatic Display Function

For a power unit error, the code is automatically displayed.

F61:
Automatically displayed on the LCD of the player.



13.1.2 Re-Display

- **For F61 Display**
  - When the code, F61 is displayed, the power is automatically turned off.
  - The code, F61 is displayed for three seconds, and then the current time appears.
  - To retrieve the code, turn on the power button so that the code F61 appears, however, is switched to time display after three seconds, and the power is automatically turned off.

13.1.3 Description of Error Code

13.1.3.1 F61

- **State, Condition**
  When the power is turned on, the unit is automatically turned off. The power does not turn on.
- **Cause, Troubleshooting**
  Power circuit system failure and/or direct current flown to speaker terminal

  Identify the cause and replace with new parts.

13.2 Memorized Error Codes

13.2.1 Activating Self-Diagnosis Function and Displaying Method

1. Turn on the power.
2. Select DVD/CD function. With no DVD/CD inserted in the player, press and hold down the ■ button simultaneously for at least two seconds, and press the F_SKIP ►►I button for at least two seconds in order to display "T_____".
3. Press the ■ button. If a memorized error is detected, the result of self diagnosis is displayed. (Ex.: T H15)(See table below)

   If several errors are detected, press the ■ button to display each.

13.2.2 Re-Display

- Press the power button to turn off the power, and then turn on the power.
- The details of self diagnosis are stored in the unit memory.

  To retrieve them, follow the procedure described the above, “Activating Self-Diagnosis Function and Displaying Method”.

13.2.3 Deleting Details of Self Diagnosis

- After repair, press and hold down the ■ button for at least five seconds, “_ CLEAR __” appears for a second and then “T_____” appears. (Deletingthe details of self diagnosis)
- After repairing errors, be sure to delete the details of self diagnosis.

Error Code	State, Condition	Cause, Troubleshooting
H15	The disc tray cannot be opened: it closes spontaneously.	Disc tray open/close detection switch (S9001) failure. (Check and replace)
H16	The disc tray cannot be closed: it opens spontaneously.	

14 Service Precautions

14.1 Recovery after the DVD player is repaired

- When FROM or module P.C.B. is replaced, carry out the recovery processing to optimize the drive.
  Playback the recovery disk to process the recovery automatically.
- Recovery disc (Product number: RFKZD03R005)
- Performing recovery
  1. Load the recovery disc RFKZD03R005 on to the player and run it.
  2. Recovery is performed automatically. When it is finished, a message appears on the screen.
  3. Remove the recovery disc.
  4. Turn off the power.

Note:

This unit requires no initialization process carried out after the traditional DVD players were repaired.

When the recovery measures are taken, the customer setting will return to the factory setting as same as the procedure described in item of "Initialization" in 12.5. is carried out. Write down the contents of the setting before recovery processing,and reset the player.

14.2 Firmware version-up of the DVD player

- The firmware of the DVD player may be renewed to improve the quality including operability and playability to the substandard discs.processing to optimize the drive.
  The recovery disc has also firmware version-up.
- After version-up, recovery processing is executed automatically.
- Part number of the recovery disc for version-up will be noticed when it is supplied.
- Updating firmware
  1. Load the recovery disc that is supplied to the player and run it.
  2. Firmware version of the player is automatically checked. Appropriate message appears whenever necessary.
  3. Using remote controller s cursor key, select whether version updating is to be done or not. (Selection of Yes/No)
  4. a. If Yes is selected, version updating is performed.
     b. If No is selected, only recovery is performed.
  5. a. When updating is finished, remove the disc according to the message appearing on the screen.
     b. Remove the disc according to the message appearing on the screen.
  6. Turn off the power.

Note:

If the AC power supply is shut out during version-up due to a power failure, the version-up is improperly carried out.

In such a case, replace the FLASH ROM IC and carry out the version-up again.

15 Adjustment Procedure

15.1 Service Tools and Equipment

Application	Name	Number
Tilt adjustment	DVD test disc	DVDT-S15 or DVDT-S01
	TORX screw driver (T6)	Available on sales route. (T6) or RFKZ0185
Others	Grease	RFKXPG641
Confirmation	CD test disc	PVCD-K06 or any other commercially available disc
	VCD test disc	PVCD-K06 or any other commercially available disc
	Recovery disc	RFKZD03R005

15.2 Important points in adjustment

15.2.1 Important points in optical adjustment

- Before starting optical adjustment, be sure to take anti-static measures.
- Optical pickup tilt adjustment is needed after replacement of the following components.

1. Optical pickup unit
2. Spindle motor unit
3. Optical pickup peripheral parts (such as rail)

Notes

Adjustment is generally unnecessary after replacing other parts of the traverse unit. However, make adjustment if there is a noticeable degradation in picture quality. Optical adjustments cannot be made inside the optical pickup. Adjustment is generally unnecessaryafter replacing the traverse unit.

15.2.2 Important points in electrical adjustment

- Follow the adjustment procedures described in this Manual.

15.3 Storing and Handling Test Discs

- Surface precision is vital for DVD test discs. Be sure to store and handle them carefully.

1. Do not place discs directly onto the workbench, etc., after use.
2. Handle discs carefully in order to maintain their flatness. Place them into their case after use and store them vertically. Store discs in a cool place where they are not exposed to direct sunlight or air from air conditioners.
3. Accurate adjustment will not be possible if the disc is warped when placed on a surface made of glass, etc. If this happens, use a new test disc to make optical adjustments.
4. If adjustment is done using a warped disc, the adjustment will be incorrect and some discs will not be playable.

15.4 Optical adjustment

15.4.1 Optical pickup tilt adjustment

Measurement point	Adjustment point	Mode	Disc
	Tangential adjustment screw Tilt adjustment screw	T01 (inner periphery) play T30 (center periphery) T43 (outer periphery) play	DVDT-S15 or DVDT-S01
Measuring equipment		Adjustment value	
None (Main unit display for servicing is used.)		Adjust to the minimum jitter value.	

15.4.1.1 Adjustment procedure

1. While pressing STOP button on the main unit, press "5" on the remote control unit.
2. Confirm that "J_xxx/yyy_zz" (display1/display2) is shown on the front display.

   For your information:

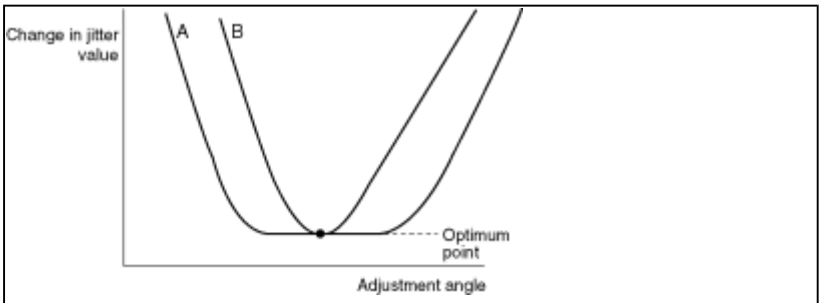
   "yyy" and "zz" shown to the right have nothing to do with the jitter value. "yyy" is the error counter, while "zz" is the focus drive value.

   Note:

   Jitter value appears on the front display.
3. Play test disc T30 (center periphery).
4. Adjust tangential adjustment screw so that the jitter value is minimized.
5. Play test disc T30 (center periphery).
6. Adjust tilt adjustment screw 1 so that the jitter value is minimized.
7. Play test disc T30 (center periphery).
8. Adjust tilt adjustment screw 2 so that the jitter value is minimized.
9. Repeat adjusting tilt adjustment screws 1 and 2 alternately until the jitter value is minimized.

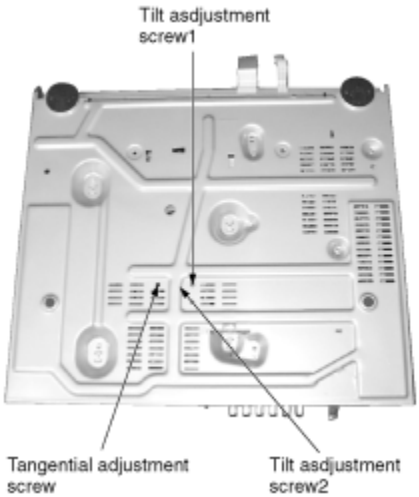
15.4.1.2 Important points

1. Make tangential adjustment first, and then make tilt adjustment.
2. Repeat adjusting two or three times to find the optimum point.
3. Finish the procedure with tilt adjustment.



Jitter value depends on the model:

1. If the jitter value changes like B, the optimum point is easy to find.
2. If the jitter value changes like A, set the optimum point near the middle.



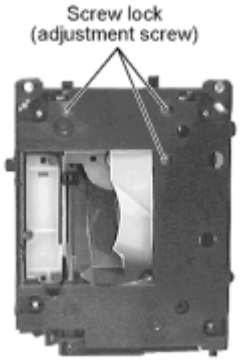
15.4.1.3 Check after adjustment

Play test disc or any other disc to make sure there is no picture degradation in the inner, middle and outer peripheries, and no audio skipping. After adjustment is finished, lock each adjustment screw in position using screw lock.

15.4.1.4 Procedure for screw lock

1. After adjustment, remove top cover, tray, clamper base and traverse unit in this sequence.
2. Lay the traverse unit upside down, and fix adjustment screw with screw lock.

3. After fixing, reassemble traverse unit, clamper base, tray and top cover.



16 Abbreviations

INITIAL/LOGO		ABBREVIATIONS
A	A0~UP	ADDRESS
	ACLK	AUDIO CLOCK
	AD0~UP	ADDRESS BUS
	ADATA	AUDIO PES PACKET DATA
	ALE	ADDRESS LATCH ENABLE
	AMUTE	AUDIO MUTE
	AREQ	AUDIO PES PACKET REQUEST
	ARF	AUDIO RF
	ASI	SERVO AMP INVERTED INPUT
	ASO	SERVO AMPOUTPUT
	ASYNC	AUDIO WORD DISTINCTION SYNC
B	BCK	BIT CLOCK (PCM)
	BCKIN	BIT CLOCK INPUT
	BDO	BLACK DROP OUT
	BLKCK	SUB CODE BLOCK CLOCK
	BOTTOM	CAP. FOR BOTTOM HOLD
	BYP	BYPATH
	BYTCK	BYTE CLOCK
C	CAV	CONSTANT ANGULAR VELOCITY
	CBDO	CAP. BLACK DROP OUT
	CD	COMPACT DISC
	CDSCK	CD SERIAL DATA CLOCK
	CDSRDATA	CD SERIAL DATA
	CDRF	CD RF (EFM) SIGNAL
	CDV	COMPACT DISC-VIDEO
	CHNDATA	CHANNEL DATA
	CKSL	SYSTEM CLOCKSELECT
	CLV	CONSTANT LINEAR VELOCITY
	COFTR	CAP. OFF TRACK
	CPA	CPU ADDRESS
	CPCS	CPU CHIP SELECT
	CPDT	CPU DATA
	CPUADR	CPU ADDRESS LATCH
	CPUADT	CPU ADDRESS DATA BUS
	CPUIRQ	CPU INTERRUPT REQUEST
	CPRD	CPU READ ENABLE
	CPWR	CPU WRITE ENABLE
	CS	CHIPSELECT
	CSYNCIN	COMPOSITE SYNC IN
	CSYNCOUT	COMPOSITE SYNC OUT
D	DACCK	D/A CONVERTER CLOCK
	DEEMP	DEEMPHASIS BIT ON/OFF
	DEMPH	DEEMPHASIS SWITCHING
	DIG0~UP	FL DIGIT OUTPUT
	DIN	DATA INPUT
	DMSRCK	DM SERIAL DATA READ CLOCK
	DMUTE	DIGITAL MUTE CONTROL
	DO	DROP OUT
	DOUT0~UP	DATAOUTPUT
	DRF	DATA SLICE RF (BIAS)
	DRPOUT	DROP OUT SIGNAL
	DREQ	DATA REQUEST
	DRESP	DATA RESPONSE
	DSC	DIGITAL SERVO CONTROLLER

	DSLF	DATA SLICE LOOP FILTER
	DVD	DIGITAL VIDEO DISC

INITIAL/LOGO		ABBREVIATIONS
E	EC	ERROR TORQUE CONTROL
	ECR	ERROR TORQUE CONTROL REFERENCE
	ENCSEL	ENCODER SELECT
	ETMCLK	EXTERNAL M CLOCK (81MHz/40.5MHz)
	ETSCLK	EXTERNAL S CLOCK (54MHz)
F	FBAL	FOCUS BALANCE
	FCLK	FRAME CLOCK
	FE	FOCUS ERROR
	FFI	FOCUS ERROR AMP INVERTED INPUT
	FEO	FOCUS ERROR AMP OUTPUT
	FG	FREQUENCY GENERATOR
	FSC	FREQUENCY SUB CARRIER
	FSCK	FS (384 OVER SAMPLING) CLOCK
G	GND	COMMON GROUNDING (EARTH)
H	HA0~UP	HOST ADDRESS
	HD0~UP	HOST DATA
	HINT	HOST INTERRUPT
	HRXW	HOST READ/WRITE
I	IECOUT	IEC958 FORMAT DATA OUTPUT
	IPFRAG	INTERPOLATION FLAG
	IREF	I (CURRENT) REFERENCE
	ISEL	INTERFACE MODE SELECT
L	LDON	LASER DIODE CONTROL
	LPC	LASER POWER CONTROL
	LRCK	L CH/R CH DISTINCTION CLOCK
M	MA0~UP	MEMORY ADDRESS
	MCK	MEMORY CLOCK
	MCKI	MEMORY CLOCK INPUT
	MCLK	MEMORY SERIAL COMMAND CLOCK
	MDATA	MEMORY SERIAL COMMAND DATA
	MDQ0~UP	MEMORY DATA INPUT/OUTPUT
	MDQM	MEMORY DATA I/O MASK
	MLD	MEMORYSERIAL COMMAND LOAD
	MPEG	MOVING PICTURE EXPERTS GROUP
O	ODC	OPTICAL DISC CONTROLLER
	OFTR	OFF TRACKING
	OSCI	OSCILLATOR INPUT
	OSCO	OSCILLATOR OUTPUT
	OSD	ON SCREEN DISPLAY
P	P1~UP	PORT
	PCD	CD TRACKING PHASE DIFFERENCE
	PCK	PLL CLOCK
	PDVD	DVD TRACKING PHASE DIFFERENCE
	PEAK	CAP. FOR PEAK HOLD
	PLLCLK	CHANNEL PLL CLOCK
	PLLOK	PLL LOCK
	PWMCTL	PWM OUTPUT CONTROL
	PWMDA	PULSE WAVE MOTOR DRIVEA
	PWMOA, B	PULSE WAVE MOTOR OUT A, B

INITIAL/LOGO		ABBREVIATIONS
R	RE	READ ENABLE
	RFENV	RF ENVELOPE
	RFO	RF PHASE DIFFERENCE OUTPUT
	RS	(CD-ROM) REGISTER SELECT
	RSEL	RF POLARITY SELECT
	RST	RESET
	RSV	RESERVE
	SBI0, 1	SERIAL DATA INPUT

S	SBO0	SERIAL DATA OUTPUT
	SBT0, 1	SERIAL CLOCK
	SCK	SERIAL DATA CLOCK
	SCKR	AUDIO SERIAL CLOCK RECEIVER
	SCL	SERIAL CLOCK
	SCLK	SERIAL CLOCK
	SDA	SERIAL DATA
	SEG0~UP	FL SEGMENT OUTPUT
	SELCLK	SELECTCLOCK
	SEN	SERIAL PORT ENABLE
	SIN1, 2	SERIAL DATA IN
	SOUT1, 2	SERIAL DATA OUT
	SPDI	SERIAL PORT DATA INPUT
	SPDO	SERIAL PORT DATA OUTPUT
	SPEN	SERIAL PORT R/W ENABLE
	SPRCLK	SERIAL PORT READ CLOCK
	SPWCLK	SERIAL PORT WRITE CLOCK
	SQCK	SUB CODE Q CLOCK
	SQCX	SUBCODE Q DATA READ CLOCK
	SRDATA	SERIAL DATA
	SRMADR	SRAM ADDRESS BUS
	SRMDT0~7	SRAM DATA BUS 0~7
	SS	START/STOP
	STAT	STATUS
	STCLK	STREAM DATA CLOCK
	STD0~UP	STREAM DATA
	STENABLE	STREAM DATA INPUT ENABLE
	STSEL	STREAM DATA POLARITY SELECT
	STVALID	STREAM DATAVALIDITY
	SUBC	SUB CODE SERIAL
	SBCK	SUB CODE CLOCK
	SUBQ	SUB CODE Q DATA
	SYSCLK	SYSTEM CLOCK
T	TE	TRACKING ERROR
	TIBAL	BALANCE CONTROL
	TID	BALANCE OUTPUT 1
	TIN	BALANCE INPUT
	TIP	BALANCE INPUT
	TIS	BALANCE OUTPUT 2
	TPSN	OP AMP INPUT
	TPSO	OP AMP OUTPUT
	TPSP	OP AMP INVERTED INPUT
	TRCRS	TRACK CROSSSIGNAL
	TRON	TRACKING ON
	TRSON	TRAVERSE SERVO ON

INITIAL/LOGO		ABBREVIATIONS
V		V BLANKING
	VBLANK	COLLECTOR POWER SUPPLY
	VCC	VOLTAGE
	VCDCONT	VIDEO CD CONTROL (TRACKING
	VDD	BALANCE)
	VFB	DRAIN POWER SUPPLY VOLTAGE
	VREF	VIDEO FEED BACK
	VSS	VOLTAGE REFERENCE
		SOURCE POWER SUPPLYVOLTAGE
W	WAIT	BUS CYCLE WAIT
	WDCK	WORD CLOCK
	WEH	WRITE ENABLE HIGH
	WSR	WORD SELECT RECEIVER
	X	X TAL
	XALE	X ADDRESS LATCH ENABLE
	XAREQ	X AUDIO DATA REQUEST

	XCDROM	X CD ROM CHIP SELECT
	XCS	X CHIP SELECT
	XCSYNC	X COMPOSITE SYNC
	XDS	X DATA STROBE
	XHSYNCO	X HORIZONTAL SYNC OUTPUT
	XHINT	XH INTERRUPTREQUEST
	XI	X TAL OSCILLATOR INPUT
	XINT	X INTERRUPT
X	XMW	X MEMORY WRITE ENABLE
	XO	X TAL OSCILLATOR OUTPUT
	XRE	X READ ENABLE
	XSRMCE	X SRAM CHIP ENABLE
	XSRMOE	X SRAM OUTPUT ENABLE
	XSRMWE	X SRAM WRITE ENABLE
	XVCS	X V-DEC CHIPSELECT
	XVDS	X V-DEC CONTROL BUS STROBE
	XVSYNCO	X VERTICAL SYNC OUTPUT

17 Voltage Chart

17.1 DVD Module P.C.B.

17.2 Main P.C.B.

17.3 FL P.C.B.

17.4 Loading Motor P.C.B.

17.5 Tray Motor P.C.B.

17.6 Sensor P.C.B.

18 Schematic Diagram Notes

- **This schematic diagram may be modified at any time with the development of new technology.**

Notes:

S6801:
Play and memory switch (▶ Memory).

S6802:
R. skip, search and tuning switch (⏮ / ◀◀ / TUNING ∨).

S6803:
F. skip, search and tuning switch (⏭ / ▶▶ / TUNING ∧).

S6804:
Stop and FM mode switch (■ FM MODE).

S6805:
Tray open / close switch (⏏ Open / Close).

S6806:
Disc exchange switch (DISC EXCHANGE).

S6807:
Disc skip switch (DISC SKIP).

S6900:
Standby / on switch (⏻/I).

S6901:
Source select switch (INPUT SELECTOR).

S6902-S6906:
Disc switch (DISC1-DISC5).

S6907:
Digital switch (DIGITAL).

S6908:
Custom sound memory (C.S.M) switch.

S6909:
Progressive out switch (PROGRESSIVE).

S6910:
CD / Tune mode switch [CD MODE / TUNE MODE].

S9001:
Loading switch.

VR6800:
Volume control.

- Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on theinternal impedance of the DC circuit tester.
- Important safety notice:

  Components identified by ⚠ mark have special characteristics important for safety.
  Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.

  When replacing any of components, be sure to use only manufacturer´s specified parts shown in the parts list.
- The supply part number is described alone in the replacement parts list.
- Voltage and signal line

  : +B Signal line

  : CD-DA signal line

  : Main signal line

  : DVD (Video) signal line

  : DVD (Audio) signal line

⇨
: FM/AM signal line

: -B Signal line

Caution!

IC and LSI are sensitive to static electricity.
Secondary trouble can be prevented by taking care during repair.
Cover the parts boxes made of plastics with aluminum foil.
Ground the soldering iron.
Put a conductive mat on the work table.
Do not touch the legs of IC or LSI with the fingers directly.

19 Block Diagram

20 Schematic Diagram

21 Printed Circuit Board Diagram

22 Wiring Connection Diagram

23 Illustration of IC ’ s, Transistors and Diodes

24 Terminal Function of ICs

24.1 IC2018 (C2CBJG000474): Operation CPU

Pin No.	Terminal Name	I/O	Function
1	LOAD	I	UP/DOWN switch signal input
2	OP/CL REV	O	Reverse control signal output for OPEN/CLOSE motor
3	OP/CL FWD	O	Forward control signal output for OPEN/CLOSE motor
4	OPEN SW	I	Rotary tray OPEN switch signal input
5	POSSITION	I	Position detection sensor signal input
6	NC	-	Not used, open
7	TUNER FWD	O	Forward control signal output for turn motor
8	BYTE	-	GND
9	CNVSS	-	GND
10	XCIN	-	Sub clock input (32.768kHz)
11	XCOUT	-	Sub clock output (32.768kHz)
12	RESET	I	System reset signal input
13	XOUT	-	Main clock output (8.0MHz)
14	VSS	-	GND
15	XIN	-	Main clock input (10.0MHz)
16	VCC	-	Power supply terminal (5V)
17	/NMI	I	Connect to VCC, external interrupt I/P
18	RMT	I	Remocon signal input
19	SYNC	I	AC failure detection input
20	TURN REW	O	Reverse control signal output for turn motor
21	PULSE	I	Speed detection sensor signal input
22	SEL	I	Model select signal input
23	EDA	I/O	EEPROM data in/output
24	ECK	O	EEPROM clock output
25	ECS	O	EEPROM latch output
26	PWM	O	Pulse width modulation output for the changer
27	SD	I	Tuner signal detect input
28	TU ST/DO	I	Stereo indicator from Tuner/ DO output of Tuner IC
29	TU SCL(PLL CK)	O	Clock output for Tuner
30	TU SDA(PLL DA)	O	Data output for Tuner
31	TU FM DET(PLL CE)	I	Tuner FM detect signal input
32	V MUTE2	O	Mute signal 2 for video output
33	V MUTE1	O	Mute signal 1 for video output
34	MUTE S	O	Mute signal output for surround Audio signal
35	DVD CMD	O	CDM signal output for the DVD module
36	DVD STA	I	Status signal input from the DVD module
37	DVD CK	I	CLK signal input from the DVD module
38	WIDE1	O	Wide function control signal output
39	MUT FRNT	O	Mute signal output for Front speaker
40	MUTE C	O	Mute signal output for Center speaker
41	EPM	I	Signal output for Flash
42	SUB MUTE	O	Mute signal output for Subwoofer
43	HP MUTE	O	Mute signal output for Headphone
44	DVD MUTE	I	Signal output from DVD module control mute circuit
45	V MUTE3	O	Mute signal 1 for video output
46	VMIX Ctrl	O	Control signal output for the video signal mix
47	MUTE L	O	Mute signal output for the line output
48	VOL DA	O	Data output for 6ch VOL ASP

49	VOL CK	O	Clock output for 6ch VOL ASP
50	NC	-	Not used, open
51	DSP CS	O	Chip select signal output for DSP2
52	DSP RST	O	Reset signal output for DSP2
53	DSP LAT	O	Latch signal output for DSP2)
54	DSP CLK	O	Clock output for DSP2
55	DSP ACK	I	Acknowledge signal input from DSP2
56	LOCK	I	Lock signal input from DSP2
57	DSP DAT	O	DATA output for DSP2
58	+10dB Ctrl	O	+10dB control signal output (H:EQ on)
59	SEL F/S	O	DSP input CH (FL/FR, SL/SR) switch control signal output
60	PO0	I	Power down/Reset detect signal input
61	SUR Mix	O	Signal output to mute surround channel and mix with front
62	VCC	-	Power supply terminal (5V)
63	MBP1	O	Micom beat proof 1 output
64	VSS	-	GND
65	MBP2	O	Micom beat proof 2 output
66	F Mix	O	Front mix channel signal output
67	DSP CON	O	Power control signal output for DSP2
68	DVD PCNT	O	Control signal output for the power for the DVD module
69	HOP	O	Digital amp. frequency control signal outputs
70	PCONT	O	Control signal output for the power control relay
71	MUTE H	O	Mute signal output for HIC
72	DC DET	I	DC detection signal input
73	RDS CK	O	Clock output for the RDS decoder
74	RDS DO	O	Data output for the RDS decoder
75	JOG B	I	Volume jog B signal input
76	JOG A	I	Volume jog A signal input
77	JOG LED	O	Volume jog LED signal output
78	CSM LED	O	Custom surround memory selection LED signal output
79	Digital IN LED	O	DIGITAL IN LED signal output
80	VRS LED	O	VRS mode LED signal OUTPUT
81	VMRS LED	O	MRS mode LED signal output
82	DISC5 LED	O	Disc 5 LED control signal output
83	DISC4 LED	O	Disc 4 LED control signal output
84	DISC3 LED	O	Disc 3 LED control signal output
85	DISC2 LED	O	Disc 2 LED control signal output
86	DISC1 LED	O	Disc 1 LED control signal output
87	FLD RST	O	FL driver reset signal output
88	FLD CS	O	FL driver latch output
89	FLD CK	O	FL driver clock output
90	FLD DA	O	Data input for the FL driver
91	KEY2	I	Key 2 line input
92	NC	-	Not used, open
93	DES3	I	DVD region setting signal input
94	DES2	I	DVD region setting signal input (speaker region)
95	DES1	I	DVD region setting signal input (Tuner/RDS/SCART region)
96	AVSS	-	Analog power supply input
97	KEY1	I	Key 1 line input
98	VREF	-	Reference voltage input
99	AVCC	-	Analog power supply input
100	DISC SENSE	I	Changer signal input

25 Parts Location and Replacement Parts List

Notes:

*Important safety notice:

Components identified by ⚠ mark have special characteristics important for safety.
Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.

When replacing any of components, be sure to use only manufacture's specified parts shown in the parts list.

*Warning: This product uses a laser diode. Refer to caution statements.

*Capacity values are in microfarads (μF) unless specified otherwise, P=Pico-farads (pF), F=Farads (F).

*Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM), 1M=1,000k (OHM).

*The parenthesized indications in the Remarks columns specify the model names and areas. (Refer to the cover page)

*The marking (RTL) indicates the retention time is limited for this item. After the discontinuation of this assembly in production, it will no longer be available.

*Reference for O/I book languages are as follows:

[En: English, Cf: Canadian French]

*[M] indicates in the Remarks columns indicates parts supplied by PAVCSG.

25.1 Loading Mechanism, Traverse Unit & Cabinet

25.1.1 Loading Mechanism, Traverse Unit & Cabinet Parts Location

25.1.2 Traverse and Cabinet Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET AND CHASSIS	
1	ENG06802QF	TUNER PACK	[M]
2	REEX0310	10P FFC WIRE	[M]
3	REEX0311	22P FFC WIRE	[M]
4	REEX0312	50P FFC WIRE	[M]
5	REZ1483	11P FFC	[M]
6	RGKX0253-1S	VOLUME RING	[M]
7	RFKGAHT920PC	FRONT PANEL ASS Y	[M]PC
7	RFKGAHT920PS	FRONT PANEL ASS Y	[M]P
7-1	RKWX0233-Q1	FL WINDOW	[M]
8	RGR0343D-A1	REAR PANEL	[M]
9	RGUX0564-S	POWER BUTTON	[M]
10	RGUX0565-S	OPEN CLOSE BUTTON	[M]
11	RGUX0566-S	FUNCTION BUTTON	[M]
12	RGWX0076-S	VOLUME KNOB	[M]
13	RHD30007-1SJ	SCREW	[M]

14	RHD30090	SCREW	[M]
15	RHD30107	SCREW	[M]
16	RKA0145-K	CUSHION	[M]
17	RKA0157-S	FOOT ASSY	[M]
18	RKM0498A-S	TOP CABINET	[M]
19	RMA1769	PANEL ANGLE	[M]
20	RMR1558-W	RING (VOLUME KNOB)	[M]
21	RMK0593A	BOTTOM CHASSIS	[M]
22	RGKX0254-K	TRAY LID	[M]
22	RMN0730	TRAY GUIDE L	[M]
23	RMN0731	TRAY GUIDE R	[M]
24	RMNX0120	FL HOLDER	[M]
25	RMVX0080	WIRE HOLDER	[M]
28	XTB3+10JFZ	SCREW	[M]
29	XTB3+6J	SCREW	[M]
30	XTBS26+10J	SCREW	[M]
31	XTBS3+8JFZ1	SCREW	[M]
32	RMNX0130	LED HOLDER	[M]
33	RXXX0053	TRANSISTOR HEAT SINK	[M]
34	RMV0268	COVER SHEET	[M]
35	RKWX0230-Q1	TRAY LID ORNAMENT	[M]
		TRAVERSE DECK	
301	RDG0567	PULSE GEAR	[M]
302	RDG0568	OPEN LOCK GEAR	[M]
303	RDG0569	CLOSE LOCK GEAR	[M]
304	RDV0073	TRAY BELT	[M]
305	REZ1484	11P FFC	[M]
306	RGQ0358-K	TRAY BASE	[M]
307	RGQ0359-K	ROTARY TRAY	[M]
308	RHW81001-1	WASHER	[M]
309	RMB0365	TRAY SPRING	[M]
310	RME0384	CLOSE LOCK GEAR SPRING	[M]
311	RMF0324	BLOCK SHEET	[M]
312	RMM0255	SLIDE PLATE L	[M]
313	XTB3+10J	SCREW	[M]
314	XTN26+8G	SCREW	[M]
315	XTWS3+10S	SCREW	[M]
316	JSM0048	MAGNET	[M]
317	RDG0562	PULLEY GEAR	[M]
318	RDG0563	RELAY GEAR A	[M]
319	RDG0564	RELAY GEAR B	[M]
320	RDG0565	DRIVE GEAR A	[M]
321	RDG0566	DRIVE GEAR B	[M]
322	RDG0570	CAM GEAR	[M]
323	RDV0072	LOADING BELT	[M]
324	RAE2008W-S	TRAVERSE SUB UNIT	[M]
325	REM0112	LOADING MOTOR ASS Y	[M]
326	RMC0387	SUPPORT SPRING	[M]
327	RMG0598A-K	FLOATING RUBBER	[M]
328	RMG0615-K	CUSHION SHEET	[M]
329	RMG0620-K	CUSHION RUBBER	[M]
330	RMK0555	MECHA BASE	[M]
331	RML0646	CHANGE LEVER	[M]
332	RMM0254	SLIDE PLATE R	[M]
333	RMR1446-X	CLAMPER	[M]
334	RMR1447-X	MAGNET HOLDER	[M]
335	RMR1596-K	MIDDLE CHASSIS	[M]
336	RMR1507-X	SUPPORT PIECE	[M]
337	RMS0789	FIXED PIN	[M]

338	RMS0802-J	DRIVE GEAR SHAFT	[M]
339	XTN26+14JFZ	SCREW	[M]
340	XTV2+6G	PCB SCREW	[M]
341	XWG6FFY	WASHER	[M]
342	RMF0182	TRAY FELT	[M]
343	RMS0123-1	FIXED PIN B	[M]
344	RMM0256	BLOCK BASE	[M]
345	RMX0274	TRAY SUPPORT R	[M]
346	RMX0275	TRAY SUPPORT L	[M]
347	RMX0290	PLASTIC SHEET	[M]

25.2 Component Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		PRINTED CIRCUIT BOARD	
	REP3654G	DVD MODULE (1) P.C.B.	[M](RTL)
	REPX0420A	MAIN P.C.B.	[M](RTL)
	REPX0335B	DSP P.C.B.	[M](RTL)
	REPX0415A	FL P.C.B.	[M](RTL)
	REPX0415B	HEADPHONE P.C.B.	[M](RTL)
	REP3465A	LOADING MOTOR P.C.B.	[M](RTL)
	REP3466A	TRAY MOTOR P.C.B.	[M](RTL)
	REP3466A	SENSOR P.C.B.	[M](RTL)
		INTEGRATED CIRCUITS	
IC600	C2HBZH000004	IC AUDIO DIGITAL PRO	[M]
IC601	C0FBZK000007	IC AUDIO CODEC	[M]
IC602	C0ABCB000052	IC QUAD OP-AMP	[M]
IC604	C0CBCBE00003	IC POWER SUPPLY	[M]
IC606	C0JBAA000400	IC AND GATE	[M]
IC2000	C0CBADG00023	IC 5V REGULATOR	[M]
IC2001	C0DBAZG00033	IC DC-TO-DC CONVERTER	[M]
IC2002	C0DBAZG00033	IC DC-TO-DC CONVERTER	[M]
IC2003	C0CBCDG00003	IC REGULATOR	[M]
IC2004	C0CBADG00023	IC 5V REGULATOR	[M]
IC2005	C0DBEFG00003	IC REGULATOR	[M]
IC2006	C9ZB00000431	IC VIDEO SELECTOR	[M]
IC2007	C0GAG0000007	IC CHANGER MOTOR DR	[M]
IC2008	C0GAG0000007	IC CHANGER MOTOR DR	[M]
IC2010	C0ABBB000118	IC BUFFER AMP	[M]
IC2011	C1BB00000845	IC ASP	[M]
IC2012	C0ABCB000052	IC QUAD OP-AMP	[M]
IC2013	C0AABB000125	IC HP AMP	[M]
IC2015	C0ABBB000118	IC BUFFER AMP	[M]
IC2018	C2CBJG000474	IC SYSTEM CONTROL	[M]
IC6901	C0HBB0000040	IC FL DRIVER	[M]
IC6902	C0JBAE000192	IC XOR GATE	[M]
IC8001	MN2DS0003APH	IC D2.1 LSI	[M]
IC8051	C3ABPG000133	DRAM	[M]
IC8111	C0CBCBD00018	IC POWER SUPPLY	[M]
IC8251	C0GBG0000044	IC DRIVER	[M]
IC8271	C0GBF0000004	IC MOTOR	[M]
IC8451	C0FBBK000036	IC AUDIO DAC	[M]
IC8601	C0EBE0000384	IC VOLTAGE DETECTING	[M]
IC8605	C0EBA0000031	IC RESET	[M]
IC8651	RFKFMH81T160	IC FLASH ROM	SPC
IC8691	C0JBAA000346	IC AND GATE LOGIC	[M]
IC8695	C0JBAA000346	IC AND GATE LOGIC	[M]

		TRANSISTORS	
Q600	B1GBCFJJ0039	TRANSISTOR	[M]
Q601	B1ABEB000001	TRANSISTOR	[M]
Q605	B1GBCFJN0021	TRANSISTOR	[M]
Q606	B1GBCFJN0021	TRANSISTOR	[M]
Q607	B1GBCFJN0021	TRANSISTOR	[M]
Q2000	B1GBCFLL0028	TRANSISTOR	[M]
Q2001	B1GBCFJJ0039	TRANSISTOR	[M]
Q2002	B1GBCFJJ0039	TRANSISTOR	[M]
Q2004	B1GBCFJN0021	TRANSISTOR	[M]
Q2011	B1ADCF000001	TRANSISTOR	[M]
Q2012	B1BCCG000021	TRANSISTOR	[M]
Q2013	B1ABCF000131	TRANSISTOR	[M]
Q2014	B1GDCFGA0014	TRANSISTOR	[M]
Q2015	KTA12710YTA	TRANSISTOR	[M]
Q2016	B1ADCF000001	TRANSISTOR	[M]
Q2017	B1BCCD000016	TRANSISTOR	[M]
Q2018	B1BCCG000021	TRANSISTOR	[M]
Q2019	B1ABCF000131	TRANSISTOR	[M]
Q2020	B1GDCFGA0014	TRANSISTOR	[M]
Q2021	B1AAKD000009	TRANSISTOR	[M]
Q2022	2SD21370PA	TRANSISTOR	[M]
Q2023	2SD21370PA	TRANSISTOR	[M]
Q2024	B1GDCFJJ0023	TRANSISTOR	[M]
Q2025	B1GBCFJA0015	TRANSISTOR	[M]
Q2026	B1GDCFGA0014	TRANSISTOR	[M]
Q2027	B1GDCFGA0014	TRANSISTOR	[M]
Q2028	B1GBCFJN0021	TRANSISTOR	[M]
Q2029	B1GBCFJN0021	TRANSISTOR	[M]
Q2031	B1GBCFJJ0039	TRANSISTOR	[M]
Q2100	B1GFGCAA0001	TRANSISTOR	[M]
Q2101	B1GFGCAA0001	TRANSISTOR	[M]
Q2102	B1GFGCAA0001	TRANSISTOR	[M]
Q2103	B1GDCFGA0014	TRANSISTOR	[M]
Q2104	B1GFGCAA0001	TRANSISTOR	[M]
Q2105	B1GDCFGA0014	TRANSISTOR	[M]
Q2200	B1GFGCAA0001	TRANSISTOR	[M]
Q2201	B1GDCFGA0014	TRANSISTOR	[M]
Q2500	B1GDCFGA0014	TRANSISTOR	[M]
Q2600	B1GDCFGA0014	TRANSISTOR	[M]
Q2601	B1GFGCAA0001	TRANSISTOR	[M]
Q2602	B1GDCFJJ0023	TRANSISTOR	[M]
Q6900	B1GBCFJN0021	TRANSISTOR	[M]
Q6901	B1GBCFJN0021	TRANSISTOR	[M]
Q6902	B1GBCFJN0021	TRANSISTOR	[M]
Q6903	B1GBCFJN0021	TRANSISTOR	[M]
Q6904	B1GBCFJN0021	TRANSISTOR	[M]
Q6906	B1GBCFJN0021	TRANSISTOR	[M]
Q6907	B1GBCFJN0021	TRANSISTOR	[M]
Q6908	B1GBCFJN0021	TRANSISTOR	[M]
Q8550	2SB1219AHL	TRANSISTOR	[M]
Q8551	2SD1819A0L	TRANSISTOR	[M]
Q8552	2SB09700RL	TRANSISTOR	[M]
Q8560	2SD1819A0L	TRANSISTOR	[M]
Q8561	2SD1819A0L	TRANSISTOR	[M]
Q8562	2SB09700RL	TRANSISTOR	[M]
Q8605	2SD1819A0L	TRANSISTOR	[M]
Q8606	2SD1819A0L	TRANSISTOR	[M]
Q9001	B3NAA0000068	CAM SENSOR	[M]

Q9101	B3NAA0000078	POSITION SENSOR	[M]
Q9102	B3NAA0000011	PHOTO INTERRUPTOR	[M]
Q9103	B3NAB0000027	PHOTO REFLECTOR	[M]
QR8420	UNR521100L	TRANSISTOR	[M]
QR8571	UNR511V00L	TRANSISTOR	[M]
		DIODES	
D2000	B0ACCE000003	DIODE	[M]
D2001	B0ACCE000003	DIODE	[M]
D2002	B0ACCE000003	DIODE	[M]
D2003	B0ACCK000005	DIODE	[M]
D2004	B0ECKM000016	DIODE	[M]
D2005	B0ECKM000016	DIODE	[M]
D2006	B0ECKM000016	DIODE	[M]
D2007	B0ECKM000016	DIODE	[M]
D2008	B0BC7R500001	DIODE	[M]
D2009	B0JCPD000025	DIODE	[M]
D2010	B0BC7R500001	DIODE	[M]
D2011	B0JCPD000025	DIODE	[M]
D2012	B0ACCK000005	DIODE	[M]
D2013	B0BC9R000008	DIODE	[M]
D2014	B0BC02900004	DIODE	[M]
D2015	B0EAKM000117	DIODE	[M]
D2016	B0EAKM000117	DIODE	[M]
D2017	B0EAKM000117	DIODE	[M]
D2018	B0EAKM000117	DIODE	[M]
D2019	B0EAKM000117	DIODE	[M]
D2020	B0EAKM000117	DIODE	[M]
D2021	B0ACCK000005	DIODE	[M]
D2022	B0BC01000014	DIODE	[M]
D2023	B0FBAM000010	DIODE	[M]
D2024	B0ECKM000016	DIODE	[M]
D2025	B0BC5R600003	DIODE	[M]
D2026	B0BC7R500001	DIODE	[M]
D2027	B0ECKM000016	DIODE	[M]
D2029	B0BC01000014	DIODE	[M]
D2030	B0ECKM000016	DIODE	[M]
D2031	B0ACCK000005	DIODE	[M]
D2032	B0ADCJ000020	DIODE	[M]
D2034	B0ECKM000016	DIODE	[M]
D2035	B0ACCK000005	DIODE	[M]
D2036	B0ACCK000005	DIODE	[M]
D2039	B0ADCJ000020	DIODE	[M]
D2040	B0ACCK000005	DIODE	[M]
D2043	B0ECKM000016	DIODE	[M]
D2044	B0EAKM000117	DIODE	[M]
D2045	B0ECKM000016	DIODE	[M]
D2046	B0ECKM000016	DIODE	[M]
D2102	B0ACCK000005	DIODE	[M]
D6801	B3AEA0000017	DIODE	[M]
D6802	B0BC7R500001	DIODE	[M]
D6900	SLI325URCT31	DIODE	[M]
D6901	B3ABA0000397	DIODE	[M]
D6902	B3ABA0000397	DIODE	[M]
D6903	B3ABA0000397	DIODE	[M]
D6904	B3ABA0000397	DIODE	[M]
D6905	B3ABA0000397	DIODE	[M]
D6907	B3ABA0000397	DIODE	[M]
D6908	B3ABA0000397	DIODE	[M]

D6909	B3ABA0000397	DIODE	[M]
D6910	B0BC5R000009	DIODE	[M]
D6911	B0ACCK000005	DIODE	[M]
D8550	MA2S11100L	DIODE	[M]
D8571	MA2J72800L	DIODE	[M]
		CHIP INDUCTORS	
LB8001	J0JHC0000045	CHIP INDUCTOR	[M]
LB8002	J0JHC0000045	CHIP INDUCTOR	[M]
LB8011	ERJ3GEYJ220V	22 1/16W	[M]
LB8271	ERJ3GEY0R00V	0 1/16W	[M]
LB8272	ERJ3GEY0R00V	0 1/16W	[M]
LB8273	ERJ3GEY0R00V	0 1/16W	[M]
LB8301	J0JCC0000119	CHIP INDUCTOR	[M]
LB8302	J0JCC0000119	CHIP INDUCTOR	[M]
LB8303	J0JCC0000119	CHIP INDUCTOR	[M]
LB8304	J0JCC0000119	CHIP INDUCTOR	[M]
LB8305	J0JCC0000119	CHIP INDUCTOR	[M]
LB8401	D0GB151JA008	CHIP RESISTOR	[M]
LB8420	J0JCC0000091	FILTER	[M]
LB8421	J0JCC0000119	CHIP INDUCTOR	[M]
LB8422	J0JCC0000119	CHIP INDUCTOR	[M]
LB8423	ERJ3GEY0R00V	CHIP JUMPER	[M]
LB8424	J0JCC0000091	FILTER	[M]
LB8451	J0JCC0000119	CHIP INDUCTOR	[M]
LB8452	J0JCC0000119	CHIP INDUCTOR	[M]
LB8453	J0JCC0000119	CHIP INDUCTOR	[M]
LB8454	J0JCC0000119	CHIP INDUCTOR	[M]
LB8455	J0JCC0000119	CHIP INDUCTOR	[M]
LB8456	J0JCC0000119	CHIP INDUCTOR	[M]
LB8491	J0JCC0000119	CHIP INDUCTOR	[M]
LB8501	ERJ3GEYJ222V	2.2K 1/16W	[M]
LB8502	J0JHC0000045	CHIP INDUCTOR	[M]
LB8503	ERJ3GEY0R00V	0 1/16W	[M]
LB8504	J0JCC0000091	FILTER	[M]
LB8505	J0JCC0000091	FILTER	[M]
LB8506	D0GB152JA002	1.5K 1/16W	[M]
LB8507	J0JCC0000091	FILTER	[M]
LB8511	ERJ3GEY0R00V	0 1/16W	[M]
LB8512	ERJ3GEY0R00V	0 1/16W	[M]
LB8513	ERJ3GEY0R00V	0 1/16W	[M]
LB8514	ERJ3GEY0R00V	0 1/16W	[M]
LB8690	J0JCC0000091	FILTER	[M]
LB8691	D0GB101JA002	100 1/16W	[M]
LB8692	D0GB101JA002	100 1/16W	[M]
LB8693	D0GB101JA002	100 1/16W	[M]
		VARIABLE RESISTORS	
VR6800	EVEKE2F3024M	VOLUME JOG	[M]
		SWITCHES	
S6801	EVQ21405R	TACT SWITCH SW PLAY	[M]
S6802	EVQ21405R	TACT SWITCH SW R.SKIP	[M]
S6803	EVQ21405R	TACT SWITCH SW F.SKIP	[M]
S6804	EVQ21405R	TACT SWITCH SW STOP/FM	[M]
S6805	EVQ21405R	TACT SWITCH SW TRAY OPEN	[M]
S6806	EVQ21405R	TACT SWITCH SW DISC EXCHANGE	[M]
S6807	EVQ21405R	TACT SWITCH SW DISC SKIP	[M]
S6900	EVQ21405R	TACT SWITCH SW STANDBY	[M]
S6901	EVQ21405R	TACT SWITCH SW SOURCE SELECT	[M]
S6902	EVQ21405R	TACT SWITCH SW DISC1	[M]

S6903	EVQ21405R	TACT SWITCH SW DISC2	[M]
S6904	EVQ21405R	TACT SWITCH SW DISC3	[M]
S6905	EVQ21405R	TACT SWITCH SW DISC4	[M]
S6906	EVQ21405R	TACT SWITCH SW DISC5	[M]
S6907	EVQ21405R	TACT SWITCH SW DIGITAL	[M]
S6908	EVQ21405R	TACT SWITCH SW C.S.M.	[M]
S6909	EVQ21405R	TACT SWITCH SW PROGRESSIVE	[M]
S6910	EVQ21405R	TACT SWITCH SW CD/TUNE MODE	[M]
S9001	K0L1BA000086	SW OPEN SW LOADING	[M]
		CONNECTORS	
CN600	RJT107K30T	30P CONNECTOR	[M]
CN2002	K1KA10A00263	10P CONNECTOR	[M]
CN2003	K1KB30A00079	30P CONNECTOR	[M]
CN2004	K1MN50A00008	50P CONNECTOR	[M]
CN2008	K1MN10A00052	10P CONNECTOR	[M]
CN2009	K1MN22A00027	22P FFC CONNECTOR	[M]
CN2010	K1MN11A00030	11P CONNECTOR	[M]
CN2011	K1MN11A00030	11P CONNECTOR	[M]
CN6801	K1MN10C00003	10P CONNECTOR	[M]
CN6901	K1MN22C00002	22P CONNECTOR	[M]
CN9003	K1MN11B00065	11P CONNECTOR	[M]
CN9102	K1MN11B00065	11P CONNECTOR	[M]
FP8031	K1MN10B00098	10P CONNECTOR	[M]
FP8101	K1MN50B00031	50P CONNECTOR	[M]
FP8271	K1MN15B00041	15P CONNECTOR	[M]
FP8501	K1MN26B00094	26P CONNECTOR	[M]
		COILS & TRANSFORMERS	
L600	J0JBC0000019	CHIP INDUCTOR	[M]
L601	J0JBC0000019	CHIP INDUCTOR	[M]
L603	J0JBC0000019	CHIP INDUCTOR	[M]
L604	J0JBC0000019	CHIP INDUCTOR	[M]
L605	J0JBC0000041	CHIP INDUCTOR	[M]
L2000	G0C3R3JA0027	COIL	[M]
L2003	J0JBC0000015	CHIP INDUCTOR	[M]
L2004	J0JBC0000015	CHIP INDUCTOR	[M]
L2005	J0JBC0000015	CHIP INDUCTOR	[M]
L2006	J0JBC0000015	CHIP INDUCTOR	[M]
L2007	J0JBC0000015	CHIP INDUCTOR	[M]
L2008	J0JBC0000015	CHIP INDUCTOR	[M]
L2009	J0JBC0000015	CHIP INDUCTOR	[M]
L2010	ELESN220JA	COIL	[M]
L2011	G0A100G00005	INDUCTOR	[M]
L2012	G0ZZ00001930	COIL	[M]
L2013	G0A100G00005	INDUCTOR	[M]
L2014	G0A100G00005	INDUCTOR	[M]
L2015	J0JBC0000019	CHIP INDUCTOR	[M]
L2016	J0JBC0000019	CHIP INDUCTOR	[M]
L2017	G0A100G00005	INDUCTOR	[M]
L2018	G0A100G00005	INDUCTOR	[M]
L2019	G0A101G00022	COIL	[M]
L2022	J0JBC0000015	CHIP INDUCTOR	[M]
L2023	J0JBC0000015	CHIP INDUCTOR	[M]
L2024	J0JBC0000015	CHIP INDUCTOR	[M]
L2025	J0JBC0000015	CHIP INDUCTOR	[M]
L2026	J0JBC0000015	CHIP INDUCTOR	[M]
L2027	J0JBC0000015	CHIP INDUCTOR	[M]
L6101	J0JBC0000019	CHIP INDUCTOR	[M]
L6201	J0JBC0000019	CHIP INDUCTOR	[M]

L6801	J0JBC0000019	CHIP INDUCTOR	[M]
L6903	J0JBC0000041	CHIP INDUCTOR	[M]
L8201	G1C100K00020	CHIP INDUCTOR	[M]
L8202	J0JCC0000079	FILTER	[M]
L8301	G1C100KA0055	CHIP INDUCTOR	[M]
L8302	J0JCC0000079	FILTER	[M]
L8420	G1C220KA0055	CHIP INDUCTOR	[M]
L8550	G1C100KA0055	CHIP INDUCTOR	[M]
		COMPONENT COMBINATION	
Z6900	B3RAD0000080	REMOTE SENSOR	[M]
		OSCILLATORS	
X600	H0J245500035	CRYSTAL OSCLLATOR	[M]
X2000	H2B100500004	CERAMIC RESONATORS	[M]
X8621	H0J270500064	S/MOUNTING CRYSTAL	[M]
		DISPLAY TUBES	
FL6901	A2BD00000082	FL DISPLAY	[M]
FL8101	F1H0J1050022	1 6.3V	[M]
FL8102	F1H0J1050022	1 6.3V	[M]
FL8103	F1H0J1050022	1 6.3V	[M]
FL8104	F1J1E1040022	0.1 25V	[M]
		FUSE PROTECTORS	
FP2000	K5G202AA0002	FUSE PROTECTOR	[M] ⚠
		JACKS	
JK600	B3ZAZ0000012	JK OPTICAL INPUT	[M]
JK2000	K1FB125B0097	JK SYSTEM CONNECTOR	[M]
JK2001	K2YZ12000010	JK COMBINED RCA	[M]
JK6801	K2HC103A0023	JK SMALL SIGN	[M]
		EARTH TERMINAL	
E2000	K4CZ01000027	TERMINAL	[M]
		WIRES	
FC9101	RWJ4906082SS	6P FLAT CABLE	[M]
		CHIP JUMPER	
W1208	ERJ3GEY0R00V	0 1/16W	[M]
W2000	ERJ3GEY0R00V	0 1/16W	[M]
W2000	ERJ6GEY0R00V	0 1/10W	[M]
W2001	ERJ3GEY0R00V	0 1/16W	[M]
W2001	ERJ6GEY0R00V	0 1/10W	[M]
W2002	ERJ3GEY0R00V	0 1/16W	[M]
W2002	ERJ6GEY0R00V	0 1/10W	[M]
W2003	ERJ3GEY0R00V	0 1/16W	[M]
W2003	ERJ6GEY0R00V	0 1/10W	[M]
W2004	ERJ3GEY0R00V	0 1/16W	[M]
W2005	ERJ3GEY0R00V	0 1/16W	[M]
W2005	ERJ6GEY0R00V	0 1/10W	[M]
W2006	ERJ3GEY0R00V	0 1/16W	[M]
W2006	ERJ6GEY0R00V	0 1/10W	[M]
W2007	ERJ3GEY0R00V	0 1/16W	[M]
W2007	ERJ6GEY0R00V	0 1/10W	[M]
W2008	ERJ3GEY0R00V	0 1/16W	[M]
W2008	ERJ6GEY0R00V	0 1/10W	[M]
W2009	ERJ3GEY0R00V	0 1/16W	[M]
W2010	ERJ6GEY0R00V	0 1/10W	[M]
W2011	ERJ3GEY0R00V	0 1/16W	[M]
W2012	ERJ3GEY0R00V	0 1/16W	[M]
W2013	ERJ3GEY0R00V	0 1/16W	[M]
W2013	ERJ6GEY0R00V	0 1/10W	[M]
W2014	ERJ3GEY0R00V	0 1/16W	[M]

W2014	ERJ6GEY0R00V	0 1/10W	[M]
W2015	ERJ3GEY0R00V	0 1/16W	[M]
W2016	ERJ3GEY0R00V	0 1/16W	[M]
W2017	ERJ3GEY0R00V	0 1/16W	[M]
W2018	ERJ3GEY0R00V	0 1/16W	[M]
W2019	ERJ3GEY0R00V	0 1/16W	[M]
W2020	ERJ3GEY0R00V	0 1/16W	[M]
W2020	ERJ6GEY0R00V	0 1/10W	[M]
W2021	ERJ6GEY0R00V	0 1/10W	[M]
W2022	ERJ3GEY0R00V	0 1/16W	[M]
W2036	ERJ3GEY0R00V	0 1/16W	[M]
W2038	ERJ3GEY0R00V	0 1/16W	[M]
W2039	ERJ3GEY0R00V	0 1/16W	[M]
W2040	ERJ3GEY0R00V	0 1/16W	[M]
W2041	ERJ3GEY0R00V	0 1/16W	[M]
W2042	ERJ3GEY0R00V	0 1/16W	[M]
W2043	ERJ3GEY0R00V	0 1/16W	[M]
W2046	ERJ3GEY0R00V	0 1/16W	[M]
W2047	ERJ3GEY0R00V	0 1/16W	[M]
W2048	ERJ6GEY0R00V	0 1/10W	[M]
W2051	ERJ6GEY0R00V	0 1/10W	[M]
W2052	ERJ6GEY0R00V	0 1/10W	[M]
W2053	ERJ6GEY0R00V	0 1/10W	[M]
W2054	ERJ6GEY0R00V	0 1/10W	[M]
W2055	ERJ6GEY0R00V	0 1/10W	[M]
W2056	ERJ6GEY0R00V	0 1/10W	[M]
W2057	ERJ6GEY0R00V	0 1/10W	[M]
W2058	ERJ6GEY0R00V	0 1/10W	[M]
W2059	ERJ6GEY0R00V	0 1/10W	[M]
W2060	ERJ6GEY0R00V	0 1/10W	[M]
W2061	ERJ6GEY0R00V	0 1/10W	[M]
W2062	ERJ6GEY0R00V	0 1/10W	[M]
W2063	ERJ6GEY0R00V	0 1/10W	[M]
W2064	ERJ6GEY0R00V	0 1/10W	[M]
W2065	ERJ6GEY0R00V	0 1/10W	[M]
W2066	ERJ6GEY0R00V	0 1/10W	[M]
W2067	ERJ6GEY0R00V	0 1/10W	[M]
W2068	ERJ6GEY0R00V	0 1/10W	[M]
W2069	ERJ6GEY0R00V	0 1/10W	[M]
W2070	ERJ6GEY0R00V	0 1/10W	[M]
W2072	ERJ6GEY0R00V	0 1/10W	[M]
W2073	ERJ6GEY0R00V	0 1/10W	[M]
W2074	ERJ6GEY0R00V	0 1/10W	[M]
W2075	ERJ6GEY0R00V	0 1/10W	[M]
W2076	ERJ6GEY0R00V	0 1/10W	[M]
W2077	ERJ6GEY0R00V	0 1/10W	[M]
W2078	ERJ6GEY0R00V	0 1/10W	[M]
W2080	ERJ6GEY0R00V	0 1/10W	[M]
W2081	ERJ3GEY0R00V	0 1/16W	[M]
W2082	ERJ3GEY0R00V	0 1/16W	[M]
W2100	ERJ3GEY0R00V	0 1/16W	[M]
W2101	ERJ3GEY0R00V	0 1/16W	[M]
W2102	ERJ3GEY0R00V	0 1/16W	[M]
W2119	ERJ3GEY0R00V	0 1/16W	[M]
W2128	ERJ3GEY0R00V	0 1/16W	[M]
W3000	ERJ6GEY0R00V	0 1/10W	[M]
W3002	ERJ3GEY0R00V	0 1/16W	[M]
W4000	ERJ6GEY0R00V	0 1/10W	[M]
		RESISTORS	

R1	ERJ3GEY0R00V	0 1/16W	[M]
R2	ERJ3GEY0R00V	0 1/16W	[M]
R3	ERJ6GEY0R00V	0 1/10W	[M]
R4	ERJ6GEY0R00V	0 1/10W	[M]
R5	ERJ3GEY0R00V	0 1/16W	[M]
R6	ERJ3GEY0R00V	0 1/16W	[M]
R7	ERJ3GEYJ682V	6.8K 1/16W	[M]
R605	ERJ3GEYJ222V	2.2K 1/16W	[M]
R606	ERJ3GEYJ123V	12K 1/16W	[M]
R607	ERJ3GEYJ472V	4.7K 1/16W	[M]
R608	ERJ3GEYJ472V	4.7K 1/16W	[M]
R609	ERJ3GEYJ123V	12K 1/16W	[M]
R610	ERJ3GEYJ123V	12K 1/16W	[M]
R611	ERJ3GEYJ123V	12K 1/16W	[M]
R612	ERJ3GEYJ102V	1K 1/16W	[M]
R613	ERJ3GEYJ153V	15K 1/16W	[M]
R614	ERJ3GEYJ102V	1K 1/16W	[M]
R615	ERJ3GEYJ103V	10K 1/16W	[M]
R616	ERJ3GEYJ472V	4.7K 1/16W	[M]
R617	ERJ3GEYJ103V	10K 1/16W	[M]
R618	D0GB101JA002	100 1/16W	[M]
R619	ERJ3GEYJ221V	220 1/16W	[M]
R620	D0GB105JA002	1M 1/16W	[M]
R622	ERJ3GEYJ221V	220 1/16W	[M]
R623	ERJ3GEYJ221V	220 1/16W	[M]
R624	ERJ3GEYJ221V	220 1/16W	[M]
R625	ERJ3GEYJ221V	220 1/16W	[M]
R626	ERJ3GEYJ221V	220 1/16W	[M]
R627	D0GB122JA019	1.2K 1/16W	[M]
R628	ERJ3GEYJ471V	470 1/16W	[M]
R629	ERJ3GEYJ471V	470 1/16W	[M]
R630	ERJ3GEYJ471V	470 1/16W	[M]
R631	ERJ3GEYJ471V	470 1/16W	[M]
R632	ERJ3GEYJ103V	10K 1/16W	[M]
R633	ERJ3GEYJ103V	10K 1/16W	[M]
R634	D0GB752JA008	7.5K 1/16W	[M]
R637	D0GB752JA008	7.5K 1/16W	[M]
R638	ERJ3GEYJ103V	10K 1/16W	[M]
R639	ERJ3GEYJ103V	10K 1/16W	[M]
R640	ERJ3GEYJ102V	1K 1/16W	[M]
R641	ERJ3GEYJ221V	220 1/16W	[M]
R643	ERJ3GEYJ123V	12K 1/16W	[M]
R644	ERJ3GEYJ123V	12K 1/16W	[M]
R645	ERJ3GEYJ123V	12K 1/16W	[M]
R646	ERJ3GEYJ102V	1K 1/16W	[M]
R649	ERJ3GEYJ123V	12K 1/16W	[M]
R650	ERJ3GEYJ123V	12K 1/16W	[M]
R651	ERJ3GEYJ221V	220 1/16W	[M]
R652	ERJ3GEYJ221V	220 1/16W	[M]
R653	ERJ3GEYJ104V	100K 1/16W	[M]
R654	ERJ3GEYJ104V	100K 1/16W	[M]
R655	ERJ3GEYJ221V	220 1/16W	[M]
R656	ERJ3GEYJ221V	220 1/16W	[M]
R657	ERJ3GEYJ104V	100K 1/16W	[M]
R658	ERJ3GEYJ104V	100K 1/16W	[M]
R659	ERJ3GEYJ221V	220 1/16W	[M]
R660	ERJ3GEYJ221V	220 1/16W	[M]
R661	ERJ3GEYJ104V	100K 1/16W	[M]
R662	ERJ3GEYJ104V	100K 1/16W	[M]

R665	ERJ3GEYJ472V	4.7K 1/16W	[M]
R666	ERJ3GEYJ472V	4.7K 1/16W	[M]
R667	ERJ3GEYJ472V	4.7K 1/16W	[M]
R668	ERJ3GEYJ472V	4.7K 1/16W	[M]
R678	ERJ3GEYJ103V	10K 1/16W	[M]
R679	ERJ3GEYJ103V	10K 1/16W	[M]
R680	ERJ3GEYJ103V	10K 1/16W	[M]
R689	D0GB101JA002	100 1/16W	[M]
R690	D0GB101JA002	100 1/16W	[M]
R691	D0GB101JA002	100 1/16W	[M]
R692	D0GB101JA002	100 1/16W	[M]
R2000	ERJ3GEYJ221V	220 1/16W	[M]
R2001	ERJ3GEYJ221V	220 1/16W	[M]
R2002	ERJ3GEYJ221V	220 1/16W	[M]
R2003	ERJ3GEYJ221V	220 1/16W	[M]
R2004	ERJ3GEYJ221V	220 1/16W	[M]
R2005	ERJ3GEYJ221V	220 1/16W	[M]
R2006	ERJ3GEYJ221V	220 1/16W	[M]
R2007	ERJ3GEYJ102V	1K 1/16W	[M]
R2008	ERJ3GEYJ103V	10K 1/16W	[M]
R2009	ERJ3GEYJ221V	220 1/16W	[M]
R2010	ERJ3GEYJ221V	220 1/16W	[M]
R2012	ERJ3GEYJ221V	220 1/16W	[M]
R2013	ERJ3GEYJ221V	220 1/16W	[M]
R2014	ERJ3GEYJ221V	220 1/16W	[M]
R2015	ERJ3GEYJ221V	220 1/16W	[M]
R2016	ERJ3GEYJ221V	220 1/16W	[M]
R2017	ERJ3GEYJ103V	10K 1/16W	[M]
R2018	ERJ3GEYJ221V	220 1/16W	[M]
R2019	ERJ3GEYJ221V	220 1/16W	[M]
R2020	ERJ3GEYJ223V	22K 1/16W	[M]
R2021	ERJ3GEYJ473V	47K 1/16W	[M]
R2022	ERJ3GEYJ473V	47K 1/16W	[M]
R2023	ERJ3GEYJ103V	10K 1/16W	[M]
R2024	ERJ3GEYJ473V	47K 1/16W	[M]
R2025	ERJ3GEYJ221V	220 1/16W	[M]
R2026	ERJ3GEYJ221V	220 1/16W	[M]
R2027	ERJ3GEYJ221V	220 1/16W	[M]
R2028	ERJ3GEYJ221V	220 1/16W	[M]
R2029	ERJ3GEYJ221V	220 1/16W	[M]
R2030	ERJ3GEYJ221V	220 1/16W	[M]
R2031	ERJ3GEYJ221V	220 1/16W	[M]
R2032	ERJ3GEYJ221V	220 1/16W	[M]
R2033	ERJ3GEYJ221V	220 1/16W	[M]
R2034	ERJ3GEYJ221V	220 1/16W	[M]
R2035	ERJ3GEYJ221V	220 1/16W	[M]
R2036	ERJ3GEYJ102V	1K 1/16W	[M]
R2037	ERJ3GEYJ102V	1K 1/16W	[M]
R2038	ERJ3GEYJ221V	220 1/16W	[M]
R2039	D0GB101JA002	100 1/16W	[M]
R2040	ERJ3GEYJ221V	220 1/16W	[M]
R2041	D0GB101JA002	100 1/16W	[M]
R2042	D0GB101JA002	100 1/16W	[M]
R2043	ERJ3GEYJ221V	220 1/16W	[M]
R2044	ERJ3GEYJ221V	220 1/16W	[M]
R2045	D0GB101JA002	100 1/16W	[M]
R2046	ERJ3GEYJ221V	220 1/16W	[M]
R2047	ERJ3GEYJ221V	220 1/16W	[M]
R2048	ERJ3GEYJ221V	220 1/16W	[M]

R2049	ERJ3GEYJ221V	220 1/16W	[M]
R2050	ERJ3GEYJ221V	220 1/16W	[M]
R2051	ERJ3GEYJ221V	220 1/16W	[M]
R2052	ERJ3GEYJ221V	220 1/16W	[M]
R2053	ERJ3GEYJ221V	220 1/16W	[M]
R2054	ERJ3GEYJ221V	220 1/16W	[M]
R2055	ERJ3GEYJ221V	220 1/16W	[M]
R2056	ERJ3GEYJ473V	47K 1/16W	[M]
R2057	ERJ3GEYJ473V	47K 1/16W	[M]
R2058	D0GB563JA002	56K 1/16W	[M]
R2059	ERJ3GEYJ221V	220 1/16W	[M]
R2060	D0GB101JA002	100 1/16W	[M]
R2061	ERJ3GEYJ221V	220 1/16W	[M]
R2062	ERJ3GEYJ221V	220 1/16W	[M]
R2063	ERJ3GEYJ221V	220 1/16W	[M]
R2064	D0GB101JA002	100 1/16W	[M]
R2065	ERJ3GEYJ103V	10K 1/16W	[M]
R2066	ERJ3GEYJ103V	10K 1/16W	[M]
R2067	ERJ3GEYJ103V	10K 1/16W	[M]
R2068	ERJ3GEYJ103V	10K 1/16W	[M]
R2069	D0GB821JA002	820 1/16W	[M]
R2070	ERJ3GEY0R00V	0 1/16W	[M]
R2071	ERJ3GEY0R00V	0 1/16W	[M]
R2072	D0GB101JA002	100 1/16W	[M]
R2073	ERJ3GEYJ221V	220 1/16W	[M]
R2074	D0GB393JA002	39K 1/16W	[M]
R2075	D0GB272JA002	2.7K 1/16W	[M]
R2076	ERJ3GEYJ104V	100K 1/16W	[M]
R2077	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2078	ERJ3GEYJ471V	470 1/16W	[M]
R2079	ERJ3GEYJ223V	22K 1/16W	[M]
R2080	ERJ3GEYJ103V	10K 1/16W	[M]
R2082	ERJ3GEYJ473V	47K 1/16W	[M]
R2083	ERJ3GEYJ681V	680 1/16W	[M]
R2084	ERJ3GEYJ223V	22K 1/16W	[M]
R2090	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2091	ERJ3GEYJ223V	22K 1/16W	[M]
R2092	ERJ3GEYJ223V	22K 1/16W	[M]
R2093	D0GB121JA002	120 1/16W	[M]
R2094	D0GB151JA008	150 1/16W	[M]
R2095	ERJ3GEYJ331V	330 1/16W	[M]
R2096	ERJ3GEYJ331V	330 1/16W	[M]
R2097	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2098	ERJ3GEYJ331V	330 1/16W	[M]
R2099	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2100	ERJ3GEYJ102V	1K 1/16W	[M]
R2101	ERJ3GEYJ473V	47K 1/16W	[M]
R2106	ERJ3GEYJ102V	1K 1/16W	[M]
R2107	ERJ3GEYJ104V	100K 1/16W	[M]
R2108	D0GB272JA002	2.7K 1/16W	[M]
R2111	ERJ3GEYJ103V	10K 1/16W	[M]
R2112	ERJ3GEYJ103V	10K 1/16W	[M]
R2113	ERJ3GEYJ103V	10K 1/16W	[M]
R2114	ERJ3GEYJ103V	10K 1/16W	[M]
R2115	D0GB273JA002	27K 1/16W	[M]
R2116	ERJ3GEYJ104V	100K 1/16W	[M]
R2117	ERJ3GEYJ104V	100K 1/16W	[M]
R2118	ERJ3GEYJ223V	22K 1/16W	[M]
R2119	D0GB562JA002	5.6K 1/16W	[M]

R2120	D0GB562JA002	5.6K 1/16W	[M]
R2121	D0GB122JA019	1.2K 1/16W	[M]
R2122	ERJ3GEYJ223V	22K 1/16W	[M]
R2123	ERJ3GEYJ103V	10K 1/16W	[M]
R2124	ERJ3GEYJ123V	12K 1/16W	[M]
R2125	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2126	ERJ3GEYJ104V	100K 1/16W	[M]
R2127	ERJ3GEYJ104V	100K 1/16W	[M]
R2128	ERJ3GEYJ102V	1K 1/16W	[M]
R2129	ERJ3GEYJ103V	10K 1/16W	[M]
R2130	ERJ3GEYJ103V	10K 1/16W	[M]
R2131	ERJ3GEYJ103V	10K 1/16W	[M]
R2132	ERJ3GEYJ103V	10K 1/16W	[M]
R2133	ERJ3GEYJ103V	10K 1/16W	[M]
R2134	ERJ3GEYJ103V	10K 1/16W	[M]
R2144	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2145	D0GB562JA002	5.6K 1/16W	[M]
R2146	D0GB333JA002	33K 1/16W	[M]
R2147	ERJ3GEYJ220V	22 1/16W	[M]
R2148	ERJ3GEYJ220V	22 1/16W	[M]
R2149	ERJ3GEYJ220V	22 1/16W	[M]
R2150	ERJ3GEYJ220V	22 1/16W	[M]
R2151	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2152	D0GB272JA002	2.7K 1/16W	[M]
R2153	D0GB100JA002	10 1/16W	[M]
R2154	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2155	ERJ3GEYJ104V	100K 1/16W	[M]
R2156	ERJ3GEYJ103V	10K 1/16W	[M]
R2157	ERJ3GEYJ102V	1K 1/16W	[M]
R2159	ERJ3GEYJ682V	6.8K 1/16W	[M]
R2160	ERJ3GEYJ822V	8.2K 1/16W	[M]
R2161	D0GB273JA002	27K 1/16W	[M]
R2162	ERJ3GEYJ752V	7.5K 1/16W	[M]
R2163	ERJ3GEYJ102V	1K 1/16W	[M]
R2164	ERJ3GEYJ203V	20K 1/16W	[M]
R2165	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2166	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2167	D0GB273JA002	27K 1/16W	[M]
R2168	D0GB563JA002	56K 1/16W	[M]
R2169	ERJ3GEYJ752V	7.5K 1/16W	[M]
R2170	ERJ3GEYJ473V	47K 1/16W	[M]
R2172	ERJ3GEYJ103V	10K 1/16W	[M]
R2173	ERJ3GEYJ103V	10K 1/16W	[M]
R2178	D0GB273JA002	27K 1/16W	[M]
R2179	ERJ3GEYJ102V	1K 1/16W	[M]
R2200	ERJ3GEYJ102V	1K 1/16W	[M]
R2201	ERJ3GEYJ473V	47K 1/16W	[M]
R2206	ERJ3GEYJ102V	1K 1/16W	[M]
R2207	ERJ3GEYJ104V	100K 1/16W	[M]
R2208	D0GB272JA002	2.7K 1/16W	[M]
R2211	ERJ3GEYJ103V	10K 1/16W	[M]
R2212	ERJ3GEYJ103V	10K 1/16W	[M]
R2213	ERJ3GEYJ103V	10K 1/16W	[M]
R2214	ERJ3GEYJ103V	10K 1/16W	[M]
R2215	D0GB273JA002	27K 1/16W	[M]
R2216	ERJ3GEYJ104V	100K 1/16W	[M]
R2217	ERJ3GEYJ104V	100K 1/16W	[M]
R2218	ERJ3GEYJ223V	22K 1/16W	[M]
R2219	D0GB562JA002	5.6K 1/16W	[M]

R2220	D0GB562JA002	5.6K 1/16W	[M]
R2221	D0GB122JA019	1.2K 1/16W	[M]
R2222	ERJ3GEYJ223V	22K 1/16W	[M]
R2223	ERJ3GEYJ103V	10K 1/16W	[M]
R2224	ERJ3GEYJ123V	12K 1/16W	[M]
R2225	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2226	ERJ3GEYJ104V	100K 1/16W	[M]
R2227	ERJ3GEYJ104V	100K 1/16W	[M]
R2228	ERJ3GEYJ102V	1K 1/16W	[M]
R2229	ERJ3GEYJ103V	10K 1/16W	[M]
R2230	ERJ3GEYJ103V	10K 1/16W	[M]
R2231	ERJ3GEYJ103V	10K 1/16W	[M]
R2232	ERJ3GEYJ103V	10K 1/16W	[M]
R2233	ERJ3GEYJ103V	10K 1/16W	[M]
R2234	ERJ3GEYJ103V	10K 1/16W	[M]
R2244	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2245	D0GB562JA002	5.6K 1/16W	[M]
R2246	D0GB333JA002	33K 1/16W	[M]
R2247	ERJ3GEYJ220V	22 1/16W	[M]
R2248	ERJ3GEYJ220V	22 1/16W	[M]
R2249	ERJ3GEYJ220V	22 1/16W	[M]
R2250	ERJ3GEYJ220V	22 1/16W	[M]
R2251	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2252	D0GB272JA002	2.7K 1/16W	[M]
R2253	D0GB100JA002	10 1/16W	[M]
R2254	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2255	ERJ3GEYJ104V	100K 1/16W	[M]
R2256	ERJ3GEYJ103V	10K 1/16W	[M]
R2257	ERJ3GEYJ102V	1K 1/16W	[M]
R2259	ERJ3GEYJ682V	6.8K 1/16W	[M]
R2260	ERJ3GEYJ822V	8.2K 1/16W	[M]
R2261	ERJ3GEYJ752V	7.5K 1/16W	[M]
R2262	D0GB273JA002	27K 1/16W	[M]
R2263	ERJ3GEYJ102V	1K 1/16W	[M]
R2264	ERJ3GEYJ203V	20K 1/16W	[M]
R2265	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2266	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2267	D0GB563JA002	56K 1/16W	[M]
R2268	D0GB273JA002	27K 1/16W	[M]
R2269	ERJ3GEYJ752V	7.5K 1/16W	[M]
R2271	ERJ3GEYJ103V	10K 1/16W	[M]
R2272	ERJ3GEYJ103V	10K 1/16W	[M]
R2278	D0GB273JA002	27K 1/16W	[M]
R2300	ERJ3GEYJ103V	10K 1/16W	[M]
R2301	ERJ3GEYJ473V	47K 1/16W	[M]
R2303	ERJ3GEYJ473V	47K 1/16W	[M]
R2304	ERJ3GEYJ752V	7.5K 1/16W	[M]
R2305	ERJ3GEYJ102V	1K 1/16W	[M]
R2306	ERJ3GEYJ104V	100K 1/16W	[M]
R2307	D0GB101JA002	100 1/16W	[M]
R2308	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2309	D0GB563JA002	56K 1/16W	[M]
R2310	D0GB273JA002	27K 1/16W	[M]
R2311	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2312	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2324	D0GB273JA002	27K 1/16W	[M]
R2400	ERJ3GEYJ103V	10K 1/16W	[M]
R2401	ERJ3GEYJ473V	47K 1/16W	[M]
R2403	ERJ3GEYJ473V	47K 1/16W	[M]

R2404	ERJ3GEYJ752V	7.5K 1/16W	[M]
R2405	ERJ3GEYJ102V	1K 1/16W	[M]
R2406	ERJ3GEYJ104V	100K 1/16W	[M]
R2407	D0GB101JA002	100 1/16W	[M]
R2408	D0GB273JA002	27K 1/16W	[M]
R2500	ERJ3GEYJ103V	10K 1/16W	[M]
R2501	D0GB333JA002	33K 1/16W	[M]
R2502	D0GB562JA002	5.6K 1/16W	[M]
R2503	D0GB332JA002	3.3K 1/16W	[M]
R2504	ERJ3GEYJ103V	10K 1/16W	[M]
R2505	ERJ3GEYJ102V	1K 1/16W	[M]
R2506	D0GB333JA002	33K 1/16W	[M]
R2507	ERJ3GEYJ153V	15K 1/16W	[M]
R2508	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2509	D0GB563JA002	56K 1/16W	[M]
R2510	D0GB273JA002	27K 1/16W	[M]
R2511	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2600	D0GB272JA002	2.7K 1/16W	[M]
R2601	ERJ3GEYJ223V	22K 1/16W	[M]
R2602	ERJ3GEYJ473V	47K 1/16W	[M]
R2603	ERJ3GEYJ203V	20K 1/16W	[M]
R2604	D0GB333JA002	33K 1/16W	[M]
R2605	D0GB332JA002	3.3K 1/16W	[M]
R2606	ERJ3GEYJ103V	10K 1/16W	[M]
R2607	ERJ3GEYJ223V	22K 1/16W	[M]
R2608	ERJ3GEYJ104V	100K 1/16W	[M]
R2609	D0GB683JA002	68K 1/16W	[M]
R2610	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2611	D0GB683JA002	68K 1/16W	[M]
R2612	ERJ3GEYJ822V	8.2K 1/16W	[M]
R2613	D0GB332JA002	3.3K 1/16W	[M]
R2614	ERJ3GEYJ102V	1K 1/16W	[M]
R2615	ERJ3GEYJ104V	100K 1/16W	[M]
R2616	ERJ3GEYJ203V	20K 1/16W	[M]
R2617	D0GB393JA002	39K 1/16W	[M]
R2618	ERJ3GEYJ102V	1K 1/16W	[M]
R2619	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2620	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2621	D0GB563JA002	56K 1/16W	[M]
R2622	D0GB273JA002	27K 1/16W	[M]
R2623	ERJ3GEYJ104V	100K 1/16W	[M]
R2624	ERJ3GEYJ104V	100K 1/16W	[M]
R2625	D0GB562JA002	5.6K 1/16W	[M]
R2800	ERJ3GEYJ331V	330 1/16W	[M]
R2801	ERJ3GEYJ103V	10K 1/16W	[M]
R2802	ERJ3GEYJ103V	10K 1/16W	[M]
R2807	ERJ3GEYJ103V	10K 1/16W	[M]
R2812	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2813	ERJ3GEYJ102V	1K 1/16W	[M]
R2815	ERJ3GEYJ331V	330 1/16W	[M]
R2816	D0GB392JA002	3.9K 1/16W	[M]
R2818	D0GB272JA002	2.7K 1/16W	[M]
R2819	D0GB1R0JA002	1 1/16W	[M]
R2820	D0GB1R0JA002	1 1/16W	[M]
R2821	D0GB1R0JA002	1 1/16W	[M]
R2822	D0GB1R0JA002	1 1/16W	[M]
R2823	D0GB1R0JA002	1 1/16W	[M]
R2824	D0GB821JA002	820 1/16W	[M]
R2825	ERJ3GEYJ103V	10K 1/16W	[M]

R2826	D0GB122JA019	1.2K 1/16W	[M]
R2827	D0GB2R7JA019	2.7 1/16W	[M]
R2828	D0GB2R7JA019	2.7 1/16W	[M]
R2829	D0GB2R7JA019	2.7 1/16W	[M]
R2830	D0GB2R7JA019	2.7 1/16W	[M]
R2831	D0GB151JA008	150 1/16W	[M]
R2832	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2833	D0GB272JA002	2.7K 1/16W	[M]
R2834	D0GB272JA002	2.7K 1/16W	[M]
R2835	ERD2FCVJ4R7T	4.7 1/4W	[M]
R2836	D0GB272JA002	2.7K 1/16W	[M]
R2837	ERJ3GEYJ561V	560 1/16W	[M]
R2838	ERJ3GEYJ103V	10K 1/16W	[M]
R2839	D0GB821JA002	820 1/16W	[M]
R2840	D0GB122JA019	1.2K 1/16W	[M]
R2841	D0GB2R7JA019	2.7 1/16W	[M]
R2842	D0GB2R7JA019	2.7 1/16W	[M]
R2843	D0GB2R7JA019	2.7 1/16W	[M]
R2844	D0GB2R7JA019	2.7 1/16W	[M]
R2845	D0GB151JA008	150 1/16W	[M]
R2846	D0GB821JA002	820 1/16W	[M]
R2847	ERJ3GEYJ471V	470 1/16W	[M]
R2848	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2849	ERD2FCVJ4R7T	4.7 1/4W	[M]
R2850	ERDS1FVJ8R2T	8.2 1/2W	[M]
R2851	D0GB101JA002	100 1/16W	[M]
R2852	ERJ3GEYJ123V	12K 1/16W	[M]
R2853	ERD2FCVJ4R7T	4.7 1/4W	[M]
R2854	D0GB1R0JA002	1 1/16W	[M]
R2855	D0GB1R0JA002	1 1/16W	[M]
R2856	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2857	ERJ3GEYJ153V	15K 1/16W	[M]
R2858	D0GB393JA002	39K 1/16W	[M]
R2859	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2860	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2861	ERJ3GEYJ103V	10K 1/16W	[M]
R2872	ERJ3GEYJ102V	1K 1/16W	[M]
R2873	D0GB273JA002	27K 1/16W	[M]
R2874	D0GB563JA002	56K 1/16W	[M]
R2875	D0GB273JA002	27K 1/16W	[M]
R2876	D0GB563JA002	56K 1/16W	[M]
R2877	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2878	D0GB1R0JA002	1 1/16W	[M]
R2879	D0GB1R0JA002	1 1/16W	[M]
R2880	D0GB1R0JA002	1 1/16W	[M]
R2881	D0GB1R0JA002	1 1/16W	[M]
R2882	D0GB1R0JA002	1 1/16W	[M]
R2883	D0GB1R0JA002	1 1/16W	[M]
R2884	D0GB1R0JA002	1 1/16W	[M]
R2885	D0GB1R0JA002	1 1/16W	[M]
R2886	D0HB750ZA003	75 3W	[M]
R2887	D0HB750ZA003	75 3W	[M]
R2888	D0HB750ZA003	75 3W	[M]
R2889	D0HB750ZA003	75 3W	[M]
R2890	D0HB750ZA003	75 3W	[M]
R2891	D0HB750ZA003	75 3W	[M]
R2892	ERJ3GEY0R00V	0 1/16W	[M]
R2893	D0GB333JA002	33K 1/16W	[M]
R2894	ERJ3GEYJ224V	220K 1/16W	[M]

R2895	ERJ3GEYJ103V	10K 1/16W	[M]
R2896	ERJ3GEYJ102V	1K 1/16W	[M]
R2897	ERJ3GEYJ102V	1K 1/16W	[M]
R2898	ERJ3GEYJ561V	560 1/16W	[M]
R2899	ERJ3GEYJ102V	1K 1/16W	[M]
R2900	ERJ3GEYJ102V	1K 1/16W	[M]
R2916	ERJ3GEYJ103V	10K 1/16W	[M]
R2917	ERJ3GEYJ103V	10K 1/16W	[M]
R2918	ERJ3GEYJ471V	470 1/16W	[M]
R2920	ERJ3GEYJ123V	12K 1/16W	[M]
R2970	ERJ3GEY0R00V	0 1/16W	[M]
R2971	ERJ3GEY0R00V	0 1/16W	[M]
R2972	ERJ3GEY0R00V	0 1/16W	[M]
R2973	ERJ3GEY0R00V	0 1/16W	[M]
R2974	ERJ3GEY0R00V	0 1/16W	[M]
R2975	ERJ3GEY0R00V	0 1/16W	[M]
R2976	ERJ3GEY0R00V	0 1/16W	[M]
R2977	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2978	D0GB332JA002	3.3K 1/16W	[M]
R2979	ERJ3GEY0R00V	0 1/16W	[M]
R2980	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2984	ERJ3GEY0R00V	0 1/16W	[M]
R2985	ERJ3GEY0R00V	0 1/16W	[M]
R2986	ERJ3GEY0R00V	0 1/16W	[M]
R2987	ERJ3GEY0R00V	0 1/16W	[M]
R6801	ERJ3GEYJ222V	2.2K 1/16W	[M]
R6802	ERJ3GEYJ182V	1.8K 1/16W	[M]
R6803	D0GB122JA019	1.2K 1/16W	[M]
R6804	ERJ3GEYJ102V	1K 1/16W	[M]
R6805	ERJ3GEYJ102V	1K 1/16W	[M]
R6806	ERJ3GEYJ470V	47 1/16W	[M]
R6807	ERJ3GEYJ223V	22K 1/16W	[M]
R6808	D0GB272JA002	2.7K 1/16W	[M]
R6809	ERJ3GEYJ223V	22K 1/16W	[M]
R6810	ERJ3GEYJ472V	4.7K 1/16W	[M]
R6811	ERJ3GEYJ470V	47 1/16W	[M]
R6905	ERJ3GEY0R00V	0 1/16W	[M]
R6906	ERJ3GEYJ221V	220 1/16W	[M]
R6907	ERJ3GEYJ221V	220 1/16W	[M]
R6908	ERJ3GEYJ221V	220 1/16W	[M]
R6909	ERJ3GEYJ221V	220 1/16W	[M]
R6910	ERJ3GEYJ221V	220 1/16W	[M]
R6912	ERJ3GEYJ221V	220 1/16W	[M]
R6913	ERJ3GEYJ221V	220 1/16W	[M]
R6914	D0GB273JA002	27K 1/16W	[M]
R6915	ERJ3GEYJ102V	1K 1/16W	[M]
R6916	ERJ3GEYJ680V	68 1/16W	[M]
R6917	ERJ3GEYJ102V	1K 1/16W	[M]
R6918	ERJ3GEYJ223V	22K 1/16W	[M]
R6922	ERJ3GEYJ102V	1K 1/16W	[M]
R6923	ERJ3GEYJ102V	1K 1/16W	[M]
R6924	D0GB122JA019	1.2K 1/16W	[M]
R6925	ERJ3GEYJ182V	1.8K 1/16W	[M]
R6926	ERJ3GEYJ222V	2.2K 1/16W	[M]
R6927	D0GB332JA002	3.3K 1/16W	[M]
R6928	ERJ3GEYJ472V	4.7K 1/16W	[M]
R6929	ERJ3GEYJ682V	6.8K 1/16W	[M]
R6930	ERJ3GEYJ103V	10K 1/16W	[M]
R6931	ERJ3GEYJ223V	22K 1/16W	[M]

R6934	ERJ3GEYJ470V	47 1/16W	[M]
R6935	D0GB151JA008	150 1/16W	[M]
R6936	D0GB151JA008	150 1/16W	[M]
R6937	ERJ3GEYJ221V	220 1/16W	[M]
R6938	D0GB272JA002	2.7K 1/16W	[M]
R6939	D0GB1R0JA002	1 1/16W	[M]
R6940	D0GB1R0JA002	1 1/16W	[M]
R6941	ERJ3GEYJ221V	220 1/16W	[M]
R6942	ERJ3GEYJ221V	220 1/16W	[M]
R6943	ERJ3GEYJ221V	220 1/16W	[M]
R6944	ERJ3GEYJ221V	220 1/16W	[M]
R6945	ERJ3GEYJ221V	220 1/16W	[M]
R6946	ERJ3GEYJ221V	220 1/16W	[M]
R6947	ERJ3GEYJ221V	220 1/16W	[M]
R6948	ERJ3GEYJ221V	220 1/16W	[M]
R6949	ERJ3GEYJ221V	220 1/16W	[M]
R8011	ERJ3GEY0R00V	0 1/16W	[M]
R8021	ERJ2GEJ103X	10K 2W	[M]
R8022	ERJ2GEJ103X	10K 2W	[M]
R8023	ERJ2GEJ473X	47K 2W	[M]
R8041	ERJ2GEJ330X	33 2W	[M]
R8232	ERJ2GEJ103X	10K 2W	[M]
R8233	ERJ3GEYJ153V	15K 1/16W	[M]
R8235	ERJ3GEYJ822V	8.2K 1/16W	[M]
R8236	ERJ3GEYJ822V	8.2K 1/16W	[M]
R8241	ERJ3GEYJ223V	22K 1/16W	[M]
R8242	D0GB752JA008	7.5K 1/16W	[M]
R8251	D0GF6R8JA017	6.8 1/16W	[M]
R8271	ERJ14YKR39H	0.KR 1/4W	[M]
R8281	D0GB101JA002	100 1/16W	[M]
R8282	D0GB101JA002	100 1/16W	[M]
R8311	ERJ3RBD242V	2.4K 3W	[M]
R8312	ERJ3RBD102V	1K 3W	[M]
R8313	ERJ3RBD243V	24K 3W	[M]
R8314	ERJ3GEY0R00V	0 1/16W	[M]
R8315	ERJ3GEYJ6R8V	6.8 1/16W	[M]
R8321	ERJ3RBD161V	160 3W	[M]
R8322	ERJ3RED100V	10 3W	[M]
R8325	ERJ3RBD161V	160 3W	[M]
R8326	ERJ3GEY0R00V	0 1/16W	[M]
R8331	ERJ3RBD161V	160 3W	[M]
R8332	ERJ3RED100V	10 3W	[M]
R8335	ERJ3RED820V	82 3W	[M]
R8341	ERJ3RED820V	82 3W	[M]
R8401	ERJ2GEJ473X	47K 2W	[M]
R8402	ERJ2GEJ101X	100 2W	[M]
R8403	ERJ2GEJ101X	100 2W	[M]
R8404	ERJ2GEJ101X	100 2W	[M]
R8420	ERJ3GEYJ222V	2.2K 1/16W	[M]
R8451	ERJ3GEY0R00V	0 1/16W	[M]
R8501	ERJ3GEY0R00V	0 1/16W	[M]
R8550	D0GB752JA008	7.5K 1/16W	[M]
R8551	ERJ3GEY0R00V	0 1/16W	[M]
R8552	ERJ3GEYJ331V	330 1/16W	[M]
R8553	ERJ3GEYJ102V	1K 1/16W	[M]
R8554	ERJ3GEYJ220V	22 1/16W	[M]
R8555	ERJ3GEYJ2R2V	2.2 1/16W	[M]
R8556	D0GB560JA002	56 1/16W	[M]
R8557	ERJ3GEYJ510V	51 1/16W	[M]

R8558	ERJ3GEYJ473V	47K 1/16W	[M]
R8559	ERJ3GEYJ153V	15K 1/16W	[M]
R8560	ERJ3GEYJ102V	1K 1/16W	[M]
R8561	ERJ3GEY0R00V	0 1/16W	[M]
R8562	ERJ3GEYJ331V	330 1/16W	[M]
R8563	ERJ3GEYJ102V	1K 1/16W	[M]
R8564	D0GB100JA002	10 1/16W	[M]
R8565	ERJ3GEYJ2R2V	2.2 1/16W	[M]
R8566	D0GB560JA002	56 1/16W	[M]
R8567	ERJ3GEYJ510V	51 1/16W	[M]
R8568	ERJ3GEYJ473V	47K 1/16W	[M]
R8569	ERJ3GEYJ123V	12K 1/16W	[M]
R8570	ERJ3GEYJ104V	100K 1/16W	[M]
R8601	ERJ3GEYJ102V	1K 1/16W	[M]
R8605	ERJ3GEYJ104V	100K 1/16W	[M]
R8606	ERJ3GEYJ103V	10K 1/16W	[M]
R8611	ERJ2GEJ101X	100 2W	[M]
R8621	D0GB105JA002	1M 1/16W	[M]
R8622	ERJ3RBD471V	470 3W	[M]
K8004	ERJ2GE0R00X	0 1/4W	[M]
K8009	ERJ2GE0R00X	0 1/4W	[M]
K8100	ERJ3GEY0R00V	0 1/16W	[M]
K8321	ERJ2GE0R00X	0 1/4W	[M]
K8325	ERJ2GE0R00X	0 1/4W	[M]
K8331	ERJ2GE0R00X	0 1/4W	[M]
K8335	ERJ2GE0R00X	0 1/4W	[M]
K8341	ERJ2GE0R00X	0 1/4W	[M]
K8421	ERJ3GEY0R00V	0 1/16W	[M]
K8651	ERJ2GE0R00X	0 1/4W	[M]
RA8011	EXB28V820JX	RESISTOR	[M]
RA8012	EXB28V820JX	RESISTOR	[M]
RA8013	EXB28V820JX	RESISTOR	[M]
RA8014	EXB28V820JX	RESISTOR	[M]
RA8015	D1H422020001	RESISTOR	[M]
RA8016	EXB28V820JX	RESISTOR	[M]
RA8017	EXB28V820JX	RESISTOR	[M]
RA8018	EXB28V820JX	RESISTOR	[M]
RA8021	D1H410320002	RESISTOR	[M]
RA8031	D1H447220001	RESISTOR	[M]
RA8032	D1H447220001	RESISTOR	[M]
RA8271	D1H410320002	RESISTOR	[M]
RA8401	D1H410120001	RESISTOR	[M]
RA8402	D1H410120001	RESISTOR	[M]
RA8501	D1H456020001	RESISTOR	[M]
RA8502	EXB28V560JX	RESISTOR	[M]
RA8503	D1H456020001	RESISTOR	[M]
RA8504	D1H456020001	RESISTOR	[M]
RA8611	D1H447220001	RESISTOR	[M]
		CAPACITORS	
C600	ECEV1CA100SR	10 16V	[M]
C601	ECJ1VB1H103K	0.01 50V	[M]
C602	ECJ1VB1H103K	0.01 50V	[M]
C603	ECUV1C104KBV	0.1 16V	[M]
C604	ECUV1C104KBV	0.1 16V	[M]
C605	ECJ1VC1H470J	47P 50V	[M]
C606	ECJ1VC1H101K	100P 50V	[M]
C607	ECJ1VC1H101K	100P 50V	[M]
C608	ECUV1C104KBV	0.1 16V	[M]

C609	ECEV0JA470SR	47 6.3V	[M]
C610	ECJ1VC1H101K	100P 50V	[M]
C611	F1H1H121A755	120P 50V	[M]
C612	F1H1A474A025	0.47 10V	[M]
C613	ECJ1VB1H103K	0.01 50V	[M]
C614	ECUV1C104KBV	0.1 16V	[M]
C615	ECEV0JA470SR	47 6.3V	[M]
C616	ECUV1C104KBV	0.1 16V	[M]
C617	ECUV1C104KBV	0.1 16V	[M]
C618	ECUV1C104KBV	0.1 16V	[M]
C619	ECUV1C104KBV	0.1 16V	[M]
C620	ECUV1C104KBV	0.1 16V	[M]
C621	ECEV0JA101SP	100 6.3V	[M]
C622	ECUV1C104KBV	0.1 16V	[M]
C623	ECJ1VC1H220J	22P 50V	[M]
C624	ECJ1VC1H220J	22P 50V	[M]
C625	ECUV1C104KBV	0.1 16V	[M]
C626	ECEV1CA100SR	10 16V	[M]
C627	ECEV1CA100SR	10 16V	[M]
C628	ECUV1C104KBV	0.1 16V	[M]
C629	ECUV1C104KBV	0.1 16V	[M]
C630	ECEV1CA100SR	10 16V	[M]
C631	ECUV1C104KBV	0.1 16V	[M]
C632	ECEV1CA100SR	10 16V	[M]
C633	ECJ1VB1H102K	1000P 50V	[M]
C634	ECJ1VB1H102K	1000P 50V	[M]
C635	ECJ1VC1H470J	47P 50V	[M]
C639	ECJ1VC1H470J	47P 50V	[M]
C640	ECUV1C104KBV	0.1 16V	[M]
C641	ECEV1CA100SR	10 16V	[M]
C642	ECJ1VC1H470J	47P 50V	[M]
C643	ECUV1C104KBV	0.1 16V	[M]
C644	ECEV1CA100SR	10 16V	[M]
C645	ECJ1VB1H103K	0.01 50V	[M]
C646	ECJ1VC1H470J	47P 50V	[M]
C647	ECUV1C104KBV	0.1 16V	[M]
C648	ECEV0JA101SP	100 6.3V	[M]
C649	ECEV0JA101SP	100 6.3V	[M]
C650	ECUV1C104KBV	0.1 16V	[M]
C651	ECJ1VB1H222K	2200P 50V	[M]
C652	ECJ1VB1H222K	2200P 50V	[M]
C653	ECEV1CA100SR	10 16V	[M]
C654	ECEV1CA100SR	10 16V	[M]
C655	ECJ1VB1H222K	2200P 50V	[M]
C656	ECJ1VB1H222K	2200P 50V	[M]
C657	ECEV1CA100SR	10 16V	[M]
C658	ECEV1CA100SR	10 16V	[M]
C659	ECJ1VB1H222K	2200P 50V	[M]
C660	ECJ1VB1H222K	2200P 50V	[M]
C661	ECEV1CA100SR	10 16V	[M]
C662	ECEV1CA100SR	10 16V	[M]
C663	ECEV1CA100SR	10 16V	[M]
C664	ECEV1CA100SR	10 16V	[M]
C678	ECJ1VB1H103K	0.01 50V	[M]
C2000	ECUV1C104KBV	0.1 16V	[M]
C2001	ECUV1C104KBV	0.1 16V	[M]
C2003	ECEA1AKA220B	22 10V	[M]
C2004	ECJ1VB1E103K	0.01 25V	[M]
C2005	RCE1AM102B	1000P 10V	[M]

C2006	ECEA1HKA2R2B	2.2 50V	[M]
C2007	ECUV1C104KBV	0.1 16V	[M]
C2008	ECUV1C104KBV	0.1 16V	[M]
C2009	ECEA0JKA101B	100 6.3V	[M]
C2019	ECJ1VB1H331K	330P 50V	[M]
C2020	ECJ1VB1H331K	330P 50V	[M]
C2021	ECJ1VB1H331K	330P 50V	[M]
C2022	ECJ1VB1H223K	0.022 50V	[M]
C2023	ECUV1C104KBV	0.1 16V	[M]
C2024	ECEA1CKA470B	47 16V	[M]
C2028	ECJ1VB1A105K	1 10V	[M]
C2029	ECJ1VB1A105K	1 10V	[M]
C2032	ECUV1C104KBV	0.1 16V	[M]
C2034	ECUV1C104KBV	0.1 16V	[M]
C2035	ECJ1VB1H103K	0.01 50V	[M]
C2036	ECEA1HKA220I	22 50V	[M]
C2037	ECJ1VB1H103K	0.01 50V	[M]
C2038	ECEA1AKA221I	220 10V	[M]
C2039	ECJ1VB1H103K	0.01 50V	[M]
C2040	ECA0JM102B	1000 6.3V	[M]
C2041	ECEA0JKA101B	100 6.3V	[M]
C2042	ECA0JM102B	1000 6.3V	[M]
C2043	ECEA0JKA101B	100 6.3V	[M]
C2044	F2A0J102A130	1000P 6.3V	[M]
C2045	ECEA0JKA101B	100 6.3V	[M]
C2046	ECA0JM331I	330 6.3V	[M]
C2047	ECA0JM331I	330 6.3V	[M]
C2048	ECEA0JKA470B	47 6.3V	[M]
C2049	ECJ1VB1A105K	1 10V	[M]
C2050	ECEA0JKA470B	47 6.3V	[M]
C2051	ECJ1VB1A105K	1 10V	[M]
C2052	EEUFC0J821B	820P 6.3V	[M]
C2053	ECJ1VB1A105K	1 10V	[M]
C2054	ECA1EM221B	220 25V	[M]
C2055	ECJ1VB1A105K	1 10V	[M]
C2056	ECEA1EKA330B	33 25V	[M]
C2057	ECJ1VB1H103K	0.01 50V	[M]
C2058	ECJ1VB1A105K	1 10V	[M]
C2059	ECA1EM221B	220 25V	[M]
C2060	ECJ1VB1A105K	1 10V	[M]
C2061	EEUFC0J821B	820P 6.3V	[M]
C2062	ECJ1VB1A105K	1 10V	[M]
C2063	ECEA1AKA470B	47 10V	[M]
C2064	ECEA1AKA470B	47 10V	[M]
C2065	ECUV1C104KBV	0.1 16V	[M]
C2066	ECA1HM101B	100 50V	[M]
C2067	ECJ1VB1H103K	0.01 50V	[M]
C2068	ECEA1AKA330B	33 10V	[M]
C2069	ECJ1VB1H103K	0.01 50V	[M]
C2070	ECA1JM101B	100 63V	[M]
C2071	ECA1JM101B	100 63V	[M]
C2072	ECA1HM101B	100 50V	[M]
C2073	F2A1E1020065	1000P 25V	[M]
C2074	ECA1JM101B	100 63V	[M]
C2075	ECA1HM101B	100 50V	[M]
C2076	F2A1E1020065	1000P 25V	[M]
C2077	ECQE1104KF3	0.1 100V	[M]
C2078	ECEA1EKA330B	33 25V	[M]
C2079	ECJ1VB1H103K	0.01 50V	[M]

C2080	ECA1EM472B	4700 25V	[M]
C2081	ECA1VM221B	220 35V	[M]
C2082	ECEA1HKA470I	47 50V	[M]
C2083	ECA1EM101B	100 25V	[M]
C2084	ECJ1VB1H103K	0.01 50V	[M]
C2085	ECA1EM101B	100 25V	[M]
C2086	ECJ1VB1H103K	0.01 50V	[M]
C2087	ECA1EM101B	100 25V	[M]
C2088	ECJ1VB1H103K	0.01 50V	[M]
C2089	ECEA1HKN4R7B	4.7 50V	[M]
C2090	ECJ1VB1E103K	0.01 25V	[M]
C2095	ECA1CAD100XI	10 16V	[M]
C2099	ECEA1HKN4R7B	4.7 50V	[M]
C2100	ECEA1HKA010I	1 50V	[M]
C2101	ECJ1VB1H332K	3300P 50V	[M]
C2102	ECJ1VB1E183K	0.018 25V	[M]
C2104	ECJ1VB1H471K	470P 50V	[M]
C2106	ECEA1HKA4R7I	4.7 50V	[M]
C2107	ECEA1HKA3R3I	3.3 50V	[M]
C2120	ECJ1VB1A105K	1 10V	[M]
C2121	ECJ1VC1H181K	180P 50V	[M]
C2122	ECJ1VB1H471K	470P 50V	[M]
C2123	ECEA1HKA100I	10 50V	[M]
C2124	ECJ1VC1H101K	100P 50V	[M]
C2125	ECJ1VC1H330J	33P 50V	[M]
C2126	ECJ1VB1E103K	0.01 25V	[M]
C2127	ECEA1HKA4R7I	4.7 50V	[M]
C2128	ECEA1HKA100B	10 50V	[M]
C2129	ECJ1VB1H682K	6800P 50V	[M]
C2130	ECJ1VB1A154K	0.15 10V	[M]
C2131	ECJ1VC1H470J	47P 50V	[M]
C2132	ECJ1VC1H101K	100P 50V	[M]
C2133	ECJ1VB1E103K	0.01 25V	[M]
C2134	ECJ1VC1H101K	100P 50V	[M]
C2135	ECJ1VC1H470J	47P 50V	[M]
C2136	ECJ1VB1H221K	220P 50V	[M]
C2137	ECUV1H104KBV	0.1 50V	[M]
C2138	ECJ1VC1H221J	220P 50V	[M]
C2139	ECJ1VC1H101K	100P 50V	[M]
C2140	ECJ1VB1H681K	680P 50V	[M]
C2141	ECJ1VC1H101K	100P 50V	[M]
C2149	ECJ1VB1A105K	1 10V	[M]
C2150	ECEA1HKA010B	1 50V	[M]
C2151	ECJ1VC1H101K	100P 50V	[M]
C2152	ECJ1VC1H470J	47P 50V	[M]
C2153	ECA1CM101B	100 16V	[M]
C2154	ECJ1VB1E103K	0.01 25V	[M]
C2155	ECJ1VB1H102K	1000P 50V	[M]
C2156	ECJ1VB1A105K	1 10V	[M]
C2157	ECEA1HKA100B	10 50V	[M]
C2158	ECJ1VB1A105K	1 10V	[M]
C2159	ECJ1VB1H471K	470P 50V	[M]
C2160	ECJ1VC1H470J	47P 50V	[M]
C2161	ECUV1C104KBV	0.1 16V	[M]
C2162	ECJ1VB1C333K	0.033 16V	[M]
C2163	ECEA1HKA3R3B	3.3 50V	[M]
C2164	ECJ1VB1H472K	4700P 50V	[M]
C2165	ECUV1C104KBV	0.1 16V	[M]
C2166	ECUV1C104KBV	0.1 16V	[M]

C2167	F1K1A4750013	47 10V	[M]
C2168	ECEA1HKA4R7I	4.7 50V	[M]
C2169	ECJ1VB1H471K	470P 50V	[M]
C2170	ECEA1HKA4R7I	4.7 50V	[M]
C2171	ECUV1C104KBV	0.1 16V	[M]
C2175	ECJ1VB1A224K	0.22 10V	[M]
C2177	ECEA1CKA470B	47 16V	[M]
C2200	ECEA1HKA010I	1 50V	[M]
C2201	ECJ1VB1H332K	3300P 50V	[M]
C2202	ECJ1VB1E183K	0.018 25V	[M]
C2204	ECJ1VB1H471K	470P 50V	[M]
C2206	ECEA1HKA4R7I	4.7 50V	[M]
C2207	ECEA1HKA3R3I	3.3 50V	[M]
C2218	ECJ1VB1A105K	1 10V	[M]
C2219	ECUV1C104KBV	0.1 16V	[M]
C2220	ECUV1C104KBV	0.1 16V	[M]
C2221	ECJ1VC1H181K	180P 50V	[M]
C2222	ECJ1VB1H471K	470P 50V	[M]
C2223	ECEA1HKA100I	10 50V	[M]
C2224	ECJ1VC1H101K	100P 50V	[M]
C2225	ECJ1VC1H330J	33P 50V	[M]
C2226	ECJ1VB1E103K	0.01 25V	[M]
C2227	ECEA1HKA4R7I	4.7 50V	[M]
C2228	ECEA1HKA100B	10 50V	[M]
C2229	ECJ1VB1H682K	6800P 50V	[M]
C2230	ECJ1VB1A154K	0.15 10V	[M]
C2231	ECJ1VC1H470J	47P 50V	[M]
C2232	ECJ1VC1H101K	100P 50V	[M]
C2233	ECJ1VB1E103K	0.01 25V	[M]
C2234	ECJ1VC1H101K	100P 50V	[M]
C2235	ECJ1VC1H470J	47P 50V	[M]
C2236	ECJ1VC1H221J	220P 50V	[M]
C2237	ECUV1H104KBV	0.1 50V	[M]
C2238	ECJ1VC1H221J	220P 50V	[M]
C2239	ECJ1VC1H101K	100P 50V	[M]
C2240	ECJ1VB1H681K	680P 50V	[M]
C2241	ECJ1VC1H101K	100P 50V	[M]
C2249	ECJ1VB1A105K	1 10V	[M]
C2250	ECEA1HKA010B	1 50V	[M]
C2251	ECJ1VC1H101K	100P 50V	[M]
C2252	ECJ1VC1H470J	47P 50V	[M]
C2253	ECA1CM101B	100 16V	[M]
C2254	ECJ1VB1E103K	0.01 25V	[M]
C2255	ECJ1VB1H102K	1000P 50V	[M]
C2256	ECJ1VB1A105K	1 10V	[M]
C2257	ECEA1HKA100B	10 50V	[M]
C2258	ECJ1VB1A105K	1 10V	[M]
C2259	ECJ1VB1H471K	470P 50V	[M]
C2260	ECJ1VC1H470J	47P 50V	[M]
C2261	ECUV1C104KBV	0.1 16V	[M]
C2262	ECJ1VB1C333K	0.033 16V	[M]
C2263	ECEA1HKA3R3B	3.3 50V	[M]
C2264	ECEA1HKA100I	10 50V	[M]
C2265	ECJ1VB1H472K	4700P 50V	[M]
C2266	F1K1A4750013	47 10V	[M]
C2267	ECEA1HKA4R7I	4.7 50V	[M]
C2270	ECJ1VB1A224K	0.22 10V	[M]
C2300	ECEA1CKA100B	10 16V	[M]
C2301	ECJ1VC1H470J	47P 50V	[M]

C2302	ECJ1VB1A105K	1 10V	[M]
C2303	ECEA1HKAR33B	0.33 50V	[M]
C2400	ECEA1HKA100B	10 50V	[M]
C2401	ECJ1VB1A105K	1 10V	[M]
C2402	ECJ1VC1H470J	47P 50V	[M]
C2403	ECJ1VB1A105K	1 10V	[M]
C2404	ECEA1HKAR33B	0.33 50V	[M]
C2405	ECJ1VB1A105K	1 10V	[M]
C2500	ECEA1CKA100B	10 16V	[M]
C2501	ECEA1HKA100I	10 50V	[M]
C2502	ECEA1HKA100I	10 50V	[M]
C2503	ECJ1VB1C333K	0.033 16V	[M]
C2504	ECJ1VB1C683K	0.068 16V	[M]
C2505	ECEA1HKA010I	1 50V	[M]
C2506	ECJ1VB1E103K	0.01 25V	[M]
C2507	ECJ1VC1H101K	100P 50V	[M]
C2508	ECEA1HKA4R7I	4.7 50V	[M]
C2600	ECJ1VB1A105K	1 10V	[M]
C2601	ECJ1VB1H102K	1000P 50V	[M]
C2602	ECEA1HKA100I	10 50V	[M]
C2603	ECEA1HKA100I	10 50V	[M]
C2604	ECJ1VB1H222K	2200P 50V	[M]
C2605	ECJ1VB0J474K	0.47 6.3V	[M]
C2606	ECUVNA224KBV	24 10V	[M]
C2607	ECUVNA224KBV	24 10V	[M]
C2608	ECUV1C104KBV	0.1 16V	[M]
C2609	ECJ1VB1H682K	6800P 50V	[M]
C2610	ECEA1HKA100B	10 50V	[M]
C2611	ECEA1HKA4R7I	4.7 50V	[M]
C2612	ECEA1HKA4R7I	4.7 50V	[M]
C2613	ECJ1VB1E103K	0.01 25V	[M]
C2615	ECJ1VB1H562K	5600P 50V	[M]
C2616	ECEA1CKA100I	10 16V	[M]
C2617	ECEA1HKA4R7I	4.7 50V	[M]
C2618	ECJ1VB1A124K	0.12 10V	[M]
C2800	ECEA1HKA4R7B	4.7 50V	[M]
C2801	ECJ1VC1H101K	100P 50V	[M]
C2802	ECJ1VC1H101K	100P 50V	[M]
C2803	ECJ1VC1H101K	100P 50V	[M]
C2804	ECJ1VC1H101K	100P 50V	[M]
C2805	ECJ1VC1H101K	100P 50V	[M]
C2806	ECJ1VC1H101K	100P 50V	[M]
C2807	ECJ1VC1H101K	100P 50V	[M]
C2808	ECJ1VC1H101K	100P 50V	[M]
C2809	ECJ1VB1H221K	220P 50V	[M]
C2810	ECJ1VB1H221K	220P 50V	[M]
C2811	ECJ1VB1E103K	0.01 25V	[M]
C2812	ECJ1VB1E103K	0.01 25V	[M]
C2815	ECA1HKA100I	10 50V	[M]
C2816	ECEA1CKA100B	10 16V	[M]
C2817	ECEA1CKA100B	10 16V	[M]
C2818	ECEA1CKA470B	47 16V	[M]
C2819	ECEA1CKA470B	47 16V	[M]
C2821	ECJ1VB1A105K	1 10V	[M]
C2830	ECUV1C104KBV	0.1 16V	[M]
C6101	ECJ1VB1H473K	0.047 50V	[M]
C6201	ECJ1VB1H473K	0.047 50V	[M]
C6801	ECJ1VB1H102K	1000P 50V	[M]
C6805	ECJ1VC1H101K	100P 50V	[M]

C6806	ECJ1VC1H101K	100P 50V	[M]
C6903	ECEA1HKA220B	22 50V	[M]
C6904	ECJ1VB1H102K	1000P 50V	[M]
C6905	ECEA1HKA220B	22 50V	[M]
C6906	ECJ1VC1H390K	39P 50V	[M]
C6909	ECJ1VB1H103K	0.01 50V	[M]
C6910	ECEA0JKS101B	100 6.3V	[M]
C6911	ECJ1VB1H103K	0.01 50V	[M]
C6913	ECEA1HKS3R3B	3.3 50V	[M]
C6914	ECJ1VB1H221K	220P 50V	[M]
C6915	ECJ1VC1H101K	100P 50V	[M]
C6916	ECJ1VC1H101K	100P 50V	[M]
C6917	ECJ1VC1H101K	100P 50V	[M]
C6918	ECEA1AKN470B	47 10V	[M]
C6918	ECJ1VC1H101K	100P 50V	[M]
C8001	EEEFC0J101P	0J0P 6.3V	[M]
C8002	EEE0GA331WP	330P 4V	[M]
C8003	ECJ1VB1H222K	2200P 50V	[M]
C8004	ECJ0EF1C104Z	0.1 16V	[M]
C8005	ECJ1ZF1C104Z	0.1 16V	[M]
C8006	ECJ1ZF1C104Z	0.1 16V	[M]
C8007	ECJ0EF1C104Z	0.1 16V	[M]
C8008	ECJ1ZF1C104Z	0.1 16V	[M]
C8009	ECJ1ZF1C104Z	0.1 16V	[M]
C8010	ECJ0EF1C104Z	0.1 16V	[M]
C8011	F1H0J1050013	1 6.3V	[M]
C8012	ECJ1ZF1C104Z	0.1 16V	[M]
C8013	ECJ1ZF1C104Z	0.1 16V	[M]
C8014	ECJ1ZF1C104Z	0.1 16V	[M]
C8015	F1H0J1050013	1 6.3V	[M]
C8016	F1H0J1050013	1 6.3V	[M]
C8017	ECJ0EF1C104Z	0.1 16V	[M]
C8018	ECJ0EF1C104Z	0.1 16V	[M]
C8019	F1H0J1050013	1 6.3V	[M]
C8020	ECJ0EF1C104Z	0.1 16V	[M]
C8021	ECJ0EF1C104Z	0.1 16V	[M]
C8022	ECJ1ZF1C104Z	0.1 16V	[M]
C8023	F1H0J1050013	1 6.3V	[M]
C8024	ECJ1VB1H222K	2200P 50V	[M]
C8025	ECJ1ZF1C104Z	0.1 16V	[M]
C8026	F1H0J1050013	1 6.3V	[M]
C8027	ECJ0EF1C104Z	0.1 16V	[M]
C8028	F1H0J1050013	1 6.3V	[M]
C8031	ECJ1ZF1C104Z	0.1 16V	[M]
C8051	F1H0J1050013	1 6.3V	[M]
C8052	ECJ0EF1C104Z	0.1 16V	[M]
C8053	ECJ1VC1H221J	220P 50V	[M]
C8054	F1H0J1050013	1 6.3V	[M]
C8055	F1H0J1050013	1 6.3V	[M]
C8056	ECJ0EF1C104Z	0.1 16V	[M]
C8057	ECJ1VB1H222K	2200P 50V	[M]
C8111	ECUVNC104KBV	0.1 16V	[M]
C8112	ECJ2FB1A105K	1 10V	[M]
C8113	ECJ1VC1H471J	470P 50V	[M]
C8201	EEE0JA101WR	10P 6.3V	[M]
C8202	EEEFC0J101P	10P 6.3V	[M]
C8203	ECJ1ZF1C104Z	0.1 16V	[M]
C8204	ECJ1ZF1C104Z	0.1 16V	[M]
C8205	ECJ1ZF1C104Z	0.1 16V	[M]

C8206	F1H0J1050013	1 6.3V	[M]
C8207	ECJ1ZF1C104Z	0.1 16V	[M]
C8208	ECJ1ZF1C104Z	0.1 16V	[M]
C8211	ECJ1VB1C333K	0.033 16V	[M]
C8212	ECJ1ZF1C104Z	0.1 16V	[M]
C8213	ECJ1ZF1C104Z	0.1 16V	[M]
C8214	ECJ1ZF1C104Z	0.1 16V	[M]
C8215	ECJ1VB1H562K	5600P 50V	[M]
C8216	ECJ1VB1C183K	0.018 16V	[M]
C8217	F1H0J1050013	1 6.3V	[M]
C8218	F1H0J1050013	1 6.3V	[M]
C8221	ECUVNC104KBV	0.1 16V	[M]
C8222	ECUVNC104KBV	0.1 16V	[M]
C8223	ECUVNC104KBV	0.1 16V	[M]
C8224	ECUVNC104KBV	0.1 16V	[M]
C8225	ECJ1ZF1C104Z	0.1 16V	[M]
C8226	ECJ1ZF1C104Z	0.1 16V	[M]
C8227	ECJ1ZF1C104Z	0.1 16V	[M]
C8228	ECJ2FB1A105K	1 10V	[M]
C8229	ECJ2FB1A105K	1 10V	[M]
C8232	ECJ1ZF1C104Z	0.1 16V	[M]
C8233	ECJ1VB1H472K	4700P 50V	[M]
C8234	ECJ1ZF1C104Z	0.1 16V	[M]
C8235	ECJ1VC1H102J	1000P 50V	[M]
C8236	ECJ1VC1H102J	1000P 50V	[M]
C8237	ECJ1VC1H102J	1000P 50V	[M]
C8238	ECJ1VC1H821J	820P 50V	[M]
C8241	ECUVNC104KBV	0.1 16V	[M]
C8242	ECUVNC104KBV	0.1 16V	[M]
C8251	EEEFC0J221P	220P 6.3V	[M]
C8252	EEE1CA220WR	22P 16V	[M]
C8253	ECJ1ZF1C104Z	0.1 16V	[M]
C8254	ECJ1ZF1C104Z	0.1 16V	[M]
C8255	ECJ1ZF1C104Z	0.1 16V	[M]
C8261	ECJ1ZF1C104Z	0.1 16V	[M]
C8271	EEEFC1C470P	47 16V	[M]
C8272	EEE0JA330WR	33P 6.3V	[M]
C8273	ECJ1ZF1C104Z	0.1 16V	[M]
C8274	ECJ1ZF1C104Z	0.1 16V	[M]
C8275	ECJ1ZF1C104Z	0.1 16V	[M]
C8284	ECJ1VB1H103K	0.01 50V	[M]
C8285	ECJ1VB1H103K	0.01 50V	[M]
C8286	ECJ1VB1H103K	0.01 50V	[M]
C8287	ECUVNC104KBV	0.1 16V	[M]
C8288	ECJ1ZF1C104Z	0.1 16V	[M]
C8301	EEE0JA221WP	220P 6.3V	[M]
C8302	EEE0JA330WR	33P 6.3V	[M]
C8303	ECJ1ZF1C104Z	0.1 16V	[M]
C8304	F1H0J1050013	1 6.3V	[M]
C8307	ECJ1ZF1C104Z	0.1 16V	[M]
C8311	ECJ1ZF1C104Z	0.1 16V	[M]
C8312	F1H0J1050013	1 6.3V	[M]
C8400	ECJ1VC1H150J	15P 50V	[M]
C8420	F2G0J331A015	330P 6.3V	[M]
C8423	ECJ1ZF1C104Z	0.1 16V	[M]
C8424	ECJ1ZF1C104Z	0.1 16V	[M]
C8451	F3F1A106A001	10 10V	[M]
C8452	F3F1A106A001	10 10V	[M]
C8453	F3F1A106A001	10 10V	[M]

C8455	ECJ0EF1C104Z	0.1 16V	[M]
C8456	ECJ1ZF1C104Z	0.1 16V	[M]
C8461	F2G0J101A015	100P 6.3V	[M]
C8462	ECJ1ZF1C104Z	0.1 16V	[M]
C8501	F1K1A1060017	10 10V	[M]
C8502	ECJ1ZF1C104Z	0.1 16V	[M]
C8503	ECJ1ZF1C104Z	0.1 16V	[M]
C8504	ECJ1ZF1C104Z	0.1 16V	[M]
C8505	ECJ1VC1H221J	220P 50V	[M]
C8506	ECUV1H101JCV	100P 50V	[M]
C8550	EEE0JA330WR	33P 6.3V	[M]
C8551	ECJ1ZF1C104Z	0.1 16V	[M]
C8552	EEEFC1C100R	10P 16V	[M]
C8553	EEE0JA470WR	47P 6.3V	[M]
C8554	F1H0J1050013	1 6.3V	[M]
C8561	ECJ1ZF1C104Z	0.1 16V	[M]
C8562	EEEFC1C100R	10P 16V	[M]
C8563	EEE0JA470WR	47P 6.3V	[M]
C8564	F1H0J1050013	1 6.3V	[M]
C8601	ECJ0EF1C104Z	0.1 16V	[M]
C8605	ECJ0EF1C104Z	0.1 16V	[M]
C8606	ECJ1VB1A224K	0.22 10V	[M]
C8611	ECJ1ZF1C104Z	0.1 16V	[M]
C8621	ECJ1VC1H390J	39P 50V	[M]
C8622	ECJ1VC1H050D	5P 50V	[M]
C8651	ECJ1ZF1C104Z	0.1 16V	[M]
C8652	ECJ1ZF1C104Z	0.1 16V	[M]
C8691	ECJ0EF1C104Z	0.1 16V	[M]
C8695	ECJ0EF1C104Z	0.1 16V	[M]

25.3 Packing Materials & Accessories Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		PACKING MATERIALS	
P1	RPGX1255	PACKING CASE	[M]P
P1	RPGX1256	PACKING CASE	[M]PC
P2	RPNX0216	POLYFOAM	[M]
P3	RPFX0058	MIRAMAT SHEET	[M]
		ACCESSORIES	
A1	EUR7722X50	REMOTE CONTROLLER	[M]
A1-1	UR76EC3103A	R/C BATTERY COVER	[M]
A2	K2CB2CB00006	POWER CORD (UL)	[M] ⚠
A3	RQT7696-P	O/I BOOK	[M]
A4	RSA0007-J	FM ANTENNA	[M]
A5	K2KA2CA00008	VIDEO CABLE	[M]
A6	K2RC021B0001	ADAPTOR	[M]
A7	N1DAAAA00001	LINEAR ANTENNA	[M]
A8	K1HA25HA0001	SYSTEM CABLE	[M]
A9	XSN5+10FN	SCREW	[M]
A10	XSS6+14FZ	SCREW	[M]

25.4 Packaging

27 Additional Contents

27.1 Notes

This document describes necessary service information for the mentioned models on the change of IC2002 & the modification of circuit. This IC is a DC-DC converter for power supply voltage. Following sections include information on the IC type & method to identity for service repair.

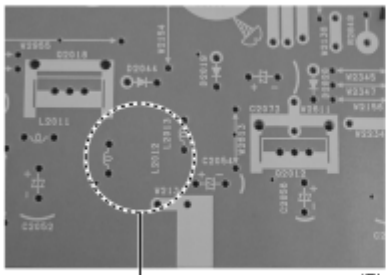
27.1.1 Change of IC type (IC2002)

This section describes the necessary information change of IC2002 on the Main P.C.B. Figure 1 below shows the location of IC2002 (DC-DC Converter).

Purpose : IC2002 changed from discrete type (through hole) to surface mount type (Ref to Figure 1 & 2 for diagram).

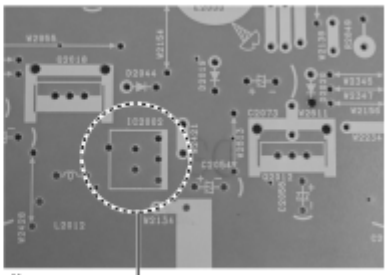
Result: this leads to modification of Main circuit (power section) & removal of parts. (section 1.3 shows the main circuit modification. Hence it is very important that the correct type of IC is used for the correct version of Main P.C.B.

Original component layer
(IC2002 used in earlier production sets)



IC2002

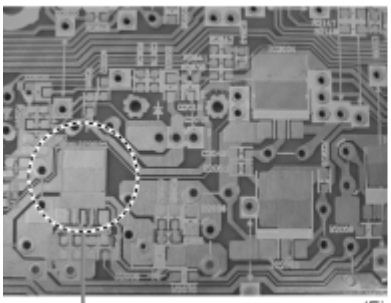
New component layer
(IC2002 used in later production sets)



IC2002

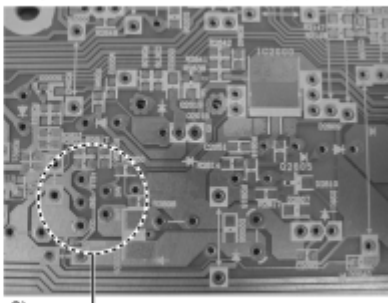
(Figure 1)

Original pattern layer
(IC2002 used in earlier production sets)



IC2002

New pattern layer
(IC2002 used in later production sets)



IC2002

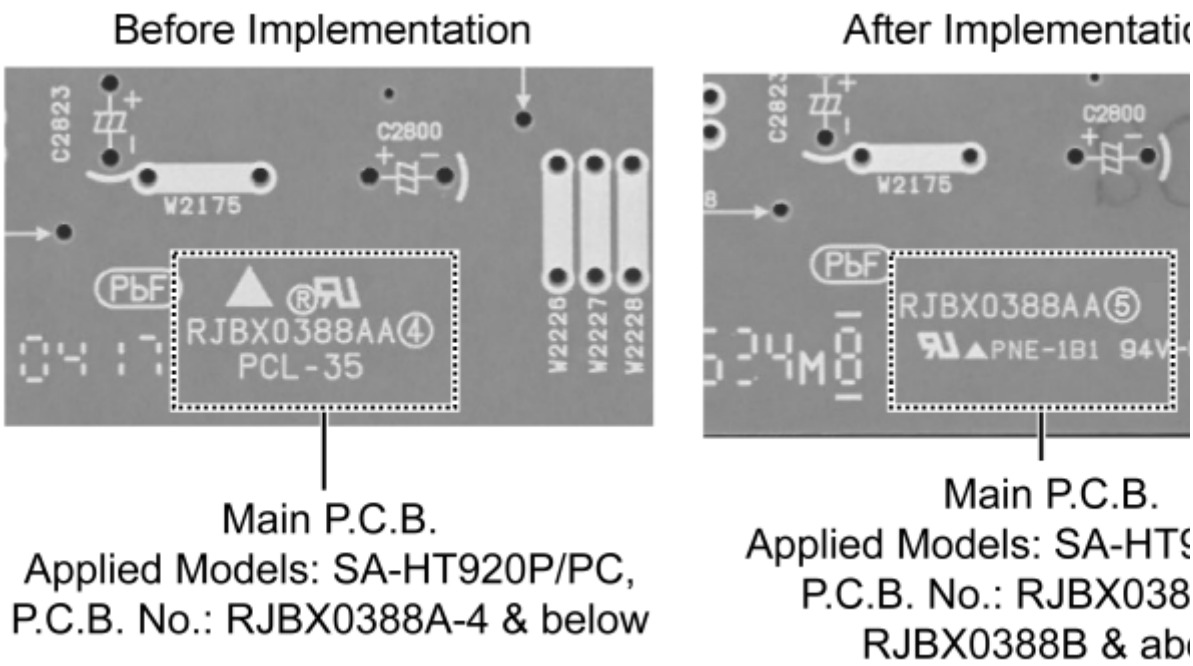
(Figure 2)

27.1.2 Method to identity before repair

This section describes the method to ensure proper service parts replacement to be carried out accordingly.

27.1.2.1 To check Main P.C.B. version

- Below is the procedures to determine the version for Main P.C.B..
  Step 1 : Disassemble the top cabinet.
  Step 2 : Locate the part no. for Main P.C.B. at the bottom right corner.



Step 3 : Replace the IC (IC 2002) accordingly base on table 1 below.

Applied Model	IC2002 Part No	Main P.C.B. compatible	Remarks
SA-HT920P/PC	C0DBAZG00033	RJBX0388A-4 & below	[M]
	C0DAAZG00012	RJBX0388A-5 / RJBX0388B & above	[M]
Table 1			

Note:

- The above mention part number is for purpose of identifying the version of Main P.C.B. before repair.
- The correct part must be use with the correct version of Main P.C.B. (Refer to Table 1.)
- The following section (section 2 to 4) illustrate the changes.
- The electrical part list change between the original & revise.

27.2 Printed Circuit Board Diagram (Revise)

27.2.1 Main P.C.B (SA-HT920P/PC)

- With reference to page 56 (section 21) for original service manual as mentioned models.
- The below Main P.C.B. applies to RJBX0388A-5 & RJBX0388B & above only. The P.C.B. part no. (complete P.C.B. with parts) remains unchanged.

27.3 Schematic Diagram (Revise)

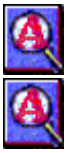
27.3.1 Schematic Diagram (SA-HT920P/PC)

- With reference to the schematic diagram of original service manual. This section illustrate the comparison between the original (for RJBX0388A-4 & below) & new (for RJBX0388A-5 or RJBX0388B & above).
- Schematic Diagram -6
- Scale location is A-1

27.4 Block Diagram (Revise)

27.4.1 Block Diagram (SA-HT920P/PC)

- Block Diagram Page 43



27.5 Part List (Revise)

- This section illustrates the changes in the electrical parts list between the original & the revised.

Please revise the original parts list in the Service Manual to conform to the change(s) shown herein.
If new part numbers are shown, be sure to use then ordering parts.

Reason for Change

*The circled item indicates the reason. If no marking, see the Notes in the bottom column.

	1. Improve performance
	2. Change of material or dimension
	3. To meet approved specification
	4. Standardization
	5. Addition
	6. Deletion
	7. Correction
●	8. Other

Interchangeability Code

**The circled item indicates the interchangeability. If no marking, see the Notes in the bottom column.

	Parts	Set Production	
	A Original	Early	Original or new parts may be used in early or late production set. Use original parts until exhausted, then stock new parts.
	New	Late	
	B Original	Early	Original parts may be used in early production sets only. New parts may be used in early or late production sets. Use original parts where possible, then stock new parts.
	New	Late	
●	C Original	Early	New parts only may be used in early or late production sets. Stock new parts.
	New	Late	
●	D Original	Early	Original parts may be used in early production sets only. New parts may be used in late production sets only. Stock both original and new parts.
	New	Late	
	E Other		

27.5.1 Part List (SA-HT920P/PC)

Part Number						
Model No.	Ref. No.	Original Part No.	New Part No.	Part Name & Description	Notes	Remarks
	D2807	-	B0ACCK000005	DIODE	8,C	[M] ADD
	Q2805	-	B1ABCF000131	TRANSISTOR	8,C	[M] ADD
	C2092	-	ECJ1VB1C103K	16V 0.01	8,C	[M] ADD
	R2814	-	ERJ3GEYJ104V	100 1/16W	8,C	[M] ADD
	R2817	-	ERJ3GEYJ471V	470 1/16W	8,C	[M] ADD
	D2010	B0BC7R500001	-	DIODE	8,D	[M] DELETE
	D2011	B0JCPD000025	-	DIODE	8,D	[M] DELETE
	IC2004	C0DBAZG00023	-	IC REGULATOR	8,D	[M] DELETE
	IC2001	C0DBAZG00033	-	IC DC-DC CONVERTER	8,D	[M] DELETE
	C2821	ECJ1VB1A105K	-	1 10V	8,D	[M] DELETE
	C2062	ECJ1VB1A105K	-	1 10V	8,D	[M] DELETE
	C2058	ECJ1VB1A105K	-	1 10V	8,D	[M] DELETE
	R2815	ERJ3GEYJ331V	-	330 1/16W	8,D	[M] DELETE
	L2019	G0A101G00022	-	COIL	8,D	[M] DELETE
	L2013	G0A100G00005	-	INDUCTOR	8,D	[M] DELETE
	L2014	RWDJ05/050	-	INDUCTOR	8,D	[M] DELETE
	L2011	RWDJ05/050	-	INDUCTOR	8,D	[M] DELETE

	D2034	B0ECKM000016	-	DIODE	8,D	[M] DELETE
	D2024	B0ECKM000016	-	DIODE	8,D	[M] DELETE
	C2081	ECA1VM221B	-	220 35V	8,D	[M] DELETE
	C2082	ECEA1HKA470I	-	47 50V	8,D	[M] DELETE
	R2853	ERD2FCVJ4R7T	-	4.7 1/4W	8,D	[M] DELETE
	IC2005	C0DBEZG00003	C0DBEZG00021	IC REGULATOR	8,C	[M] CHANGE
	C2055	ECJ1VB1C105K	ECJ1VB1C103K	1 10V	8,C	[M] CHANGE
	R2819	ERJ3GEYJ1ROV	ERJ3GEYJ102V	1 1/16W	8,C	[M] CHANGE
	R2818	ERJ3GEYJ272V	ERJ3GEYJ102V	2.7K 1/16W	8,C	[M] CHANGE
SA-HT920P/PC	R2852	ERJ3GEYJ123V	ERJ3GEYJ222V	12K 1/16W	8,C	[M] CHANGE
	R2813	ERJ3GEYJ102V	ERJ3GEYJ222V	1 1/16W	8,C	[M] CHANGE
	R2898	ERJ3GEYJ561V	ERJ3GEYJ471V	560 1/16W	8,C	[M] CHANGE
	R2816	ERJ3GEYJ392V	ERJ3GEYJ681V	3.9K 1/16W	8,C	[M] CHANGE
	R2916	ERJ3GEYJ103V	ERJ3GEYJ182V	10K 1/16W	8,C	[M] CHANGE
	R2920	ERJ3GEYJ123V	ERJ3GEYJ222V	12K 1/16W	8,C	[M] CHANGE
	R2917	ERJ3GEYJ103V	ERJ3GEYJ472V	10K 1/16W	8,C	[M] CHANGE
	IC2002	C0DBAZG00033	C0DAAZG00012	IC DC-DC CONVERTER	8,C	[M] CHANGE
	C2063	ECEA1AKA470B	ECA0JM471B	10V 47	8,C	[M] CHANGE
	C2048	ECEA0JKA470B	ECEA0JKA101B	6.3V 47	8,C	[M] CHANGE

- T.I. 27627 (Factory reference only)

26 Schematic Diagram for printing with A4

Ref No.	IC6901																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	-0.1	-0.1	-15.4	-21.5	-21.4	-21.4	-14.4	-21.4	-12.1	-16.8	-12.1	-21.5	0	0	-23.8	-21.5	-23.8	-21.4	-19.1	-23.8
STANDBY	0	0	-14.5	-21.5	-23.8	-19.2	-16.8	-9.8	-14.5	-14.5	-14.5	-12.2	0	0	-23.8	-21.5	-21.5	-14.5	-21.5	-23.8

Ref No.	IC6901																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	-26.5	-26.4	-26.4	-26.5	0	0	-26.4	-26.4	-26.4	-26.5	-26.5	-26.5	-26.5	-26.5	-26.4	-26.4	0	0	-29.1	0
STANDBY	-26.5	-26.5	-26.5	-26.5	0	0	-26.5	-26.5	-26.5	-26.5	-26.5	-26.5	-26.5	-26.6	-26.5	-26.5	0	0	-29.2	0

Ref No.	IC6901							
MODE	41	42	43	44	45	46	47	48
CD PLAY	4.6	2.1	3.3	0.6	0	2.0	1.9	4.3
STANDBY	4.6	1.9	3.2	0.9	0	2.0	1.9	4.3

Ref No.	Q6900			Q6901			Q6902			Q6903			Q6904		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
CD PLAY	0	0.1	4.6	0	7.8	0	0	7.8	0	0	7.8	0	0	7.9	0
STANDBY	0	0.1	4.6	0	7.8	0	0	7.8	0	0	7.8	0	0	7.9	0

Ref No.	Q9001																			
MODE	1	2	3	4																
CD PLAY	1.2	4.6	0	0																
STANDBY	1.2	4.6	0	0																

Ref No.	IC2000																				
MODE	1	2	3																		
CD PLAY	6.1	0	5.0																		
STANDBY	6.1	0	5.0																		
Ref No.	IC2001																				
MODE	1	2	3	4	5																
CD PLAY	13.4	2.9	0	1.0	3.5																
STANDBY	13.5	2.6	0	1.0	3.5																
Ref No.	IC2002																				
MODE	1	2	3	4	5																
CD PLAY	13.5	6.0	0	1.0	3.5																
STANDBY	13.7	6.0	0	1.0	3.5																
Ref No.	IC2004																				
MODE	1	2	3																		
CD PLAY	6.1	0	5.0																		
STANDBY	6.1	0	5.0																		
Ref No.	IC2005																				
MODE	1	2	3	4	5																
CD PLAY	2.4	5.0	1.3	1.0	0																
STANDBY	2.4	5.0	1.3	1.0	0																
Ref No.	IC2006																				
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
CD PLAY	4.8	2.2	4.8	0	0	1.7	2.4	0	1.9	0	0	1.7	0	2.2	4.8	2.2	0	2.2	2.2	0	
STANDBY	4.8	2.2	4.8	0	0	1.7	2.4	0	1.9	0	0	1.7	0	2.2	4.8	2.2	0	2.2	2.2	0	
Ref No.	IC2006																				
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34							
CD PLAY	2.2	2.2	0	1.8	1.6	0	1.8	1.7	0	1.7	1.6	0	2.2	4.8							
STANDBY	2.2	2.2	0	1.8	1.6	0	1.8	1.7	0	1.7	1.6	0	2.2	4.8							
Ref No.	IC2007																				
MODE	1	2	3	4	5	6	7	8	9												
CD PLAY	0	0	0	0	8.7	9.2	4.6	0	4.6												
STANDBY	0	0	0	0	8.7	9.2	4.6	0	4.6												
Ref No.	IC2008																				
MODE	1	2	3	4	5	6	7	8	9												
CD PLAY	0	0	0	0	8.7	9.2	4.6	0	4.6												
STANDBY	0	0	0	0	8.7	9.2	4.6	0	4.6												
Ref No.	IC2010																				
MODE	1	2	3	4	5	6	7	8													
CD PLAY	0	0	0	-6.7	0	0	0	6.8													
STANDBY	0	0	0	-6.7	0	0	0	6.9													
Ref No.	IC2011																				
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
CD PLAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Ref No.	IC2011																				
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
CD PLAY	0	0	0	0	0	0	0	0	0	0	0	0	-6.0	2.4	0	0	0	0	0	0	
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	-6.0	2.4	0	0	0	0	0	0	
Ref No.	IC2011																				
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	
CD PLAY	0	-6.0	6.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
STANDBY	0	-6.0	6.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Ref No.	IC2011																				
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	
CD PLAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Ref No.	IC2012																				
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14							
CD PLAY	0	0	0	6.8	0	0	0	0	0	0	-6.7	0	0	0							
STANDBY	0	0	0	6.8	0	0	0	0	0	0	-6.7	0	0	0							
Ref No.	IC2013																				
MODE	1	2	3	4	5	6	7	8													
CD PLAY	0	0	0	-6.7	0	0	0	6.9													
STANDBY	0	0	0	-6.7	0	0	0	6.9													
Ref No.	IC2015																				
MODE	1	2	3	4	5	6	7	8													
CD PLAY	0	0	0	-6.7	0	0	0	6.8													
STANDBY	0	0	0	-6.7	0	0	0	6.9													
Ref No.	IC2018																				
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
CD PLAY	4.5	4.7	4.7	0	0.2	0	4.7	0	0	0	0	4.6	2.3	0	2.2	4.7	4.7	4.6	2.6	4.7	
STANDBY	4.5	4.7	4.7	0	0.2	0	4.7	0	0	4.7	0	4.6	2.3	0	2.2	4.7	4.7	4.7	2.6	4.7	
Ref No.	IC2018																				
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
CD PLAY	0.1	0.5	0.3	0	0	4.6	0	0.1	4.7	4.7	0.5	0	0	0	3.6	3.9	4.3	4.6	0	4.6	
STANDBY	0.1	0.2	0.1	0	0	4.6	0	0	4.8	4.8	0.2	0	0	4.6	3.5	4.0	4.3	4.7	4.6	4.6	
Ref No.	IC2018																				
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	
CD PLAY	0	0	0	0	0	0	0	0	0	0	0	4.6	0	4.7	0	0	0	0	0	0.5	
STANDBY	0	4.6	0	4.7	0	0	0	0	0	0	0	4.6	0	4.7	0	0	0	0	0	0.2	
Ref No.	IC2018																				
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	
CD PLAY	0	4.7	0	0	0	4.6	0	4.6	0	4.4	0	4.7	0	0	0	4.7	0	0	0	0	
STANDBY	0	4.7	0	0	0	4.6	0	4.6	0	4.4	0	4.7	0	0	0	4.8	0	0	0	0	
Ref No.	IC2018																				
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	
CD PLAY	0	0	0	0	0	4.6	4.7	2.1	3.3	0.7	2.8	0	0.4	0	0	0	4.7	4.8	4.7	0.2	
STANDBY	-0.1	0	0	0	0	4.7	4.7	2.0	3.3	0.9	2.8	0	0.4	0	0	0	4.8	4.8	4.7	0.2	

Ref No.	IC2021																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
CD PLAY	0	0	0	6.8	0	0	0	0	0	0	-6.7	0	0	0						
STANDBY	0	0	0	6.8	0	0	0	0	0	0	-6.7	0	0	0						
Ref No.	IC2022																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
CD PLAY	0	0	0	0	0	0	-6.7	0	4.7	4.7	4.7	0	0	0	0	5.1				
STANDBY	0	0	0	0	0	0	-6.7	0	4.6	4.6	4.6	0	0	0	0	5.1				

Ref No.	Q2000			Q2001			Q2002			Q2004			Q2011		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
CD PLAY	0	4.6	0	0	0	4.5	0	0	4.5	0	0	4.6	13.5	-3.0	13.5
STANDBY	0	4.6	0	0	0	4.5	0	0	4.5	0	0	4.5	13.8	-3.0	13.7
Ref No.	Q2012			Q2013			Q2014			Q2015			Q2016		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
CD PLAY	13.5	9.2	12.9	8.5	12.9	9.1	13.6	12.9	13.5	-29.2	-34.8	-29.9	0	-7.3	-0.6
STANDBY	13.6	9.2	12.9	8.5	12.9	9.1	13.6	12.9	13.6	-29.3	-35.0	-29.9	0	-7.3	-0.6
Ref No.	Q2017			Q2018			Q2019			Q2020			Q2021		
MODE	1	2	3	E	C	B	E	C	B	E	C	B	E	C	B
CD PLAY	-6.7	-12.0	-7.3	13.4	9.2	12.2	8.6	12.8	9.1	13.6	12.8	13.4	9.2	5.6	5.0
STANDBY	-6.7	-12.3	-7.3	13.8	9.2	13.1	8.6	13.1	9.1	13.9	13.1	13.8	9.2	5.6	5.0
Ref No.	Q2022			Q2023			Q2025			Q2026			Q2027		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
CD PLAY	7.4	13.2	6.9	10.1	13.1	9.5	0	4.7	-3.0	0	-4.5	0	1.8	1.7	0
STANDBY	6.9	13.4	7.4	10.1	13.2	9.5	0	4.7	-3.0	0	-4.5	0	1.7	1.7	0
Ref No.	Q2028			Q2029			Q2100								
MODE	E	C	B	E	C	B	1	2	3	4	5	6			
CD PLAY	0	0	2.8	0	0	3.5	0	-4.5	0	0	-4.5	0			
STANDBY	0	5.0	0	0	0	3.5	0	-4.5	0	0	-4.5	-0.5			

Ref No.	Q2101						Q2102						Q2103				
MODE	1	2	3	4	5	6	1	2	3	4	5	6	E	C	B		
CD PLAY	0	0.6	0	0	0.6	0	0	-4.5	0	0	-4.5	0	1.7	1.7	0		
STANDBY	0	0.6	0	0	0.6	0	0	-4.5	0	0	-4.5	0	1.7	1.7	0		
Ref No.	Q2104						Q2105			Q2200							
MODE	1	2	3	4	5	6	E	C	B	1	2	3	4	5	6		
CD PLAY	0	0.6	0	0	0.6	0	0	-4.5	0	0	-4.5	0	0	-4.5	0		
STANDBY	0	0.6	0	0	0.6	0	1.7	1.7	0	0	0.6	0	0	0.6	0		
Ref No.	Q2201			Q2300			Q2301			Q2500			Q2600				
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B		
CD PLAY	0	-4.5	0	0	0	0.7	2.0	2.0	0	2.9	2.0	2.2	0	-4.5	0		
STANDBY	0	-4.5	0	0	0	0.7	2.0	2.0	0	2.9	2.0	2.2	2.1	2.1	0		
Ref No.	Q2601																
MODE	1	2	3	4	5	6											
CD PLAY	0	-4.5	0	0	0.6	0											
STANDBY	0	0.7	0	0	0.6	0											

Ref No.	IC8001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	3.0	3.0	0	3.0	3.2	3.4	3.0	3.1	0	3.1	3.1	3.3	2.9	3.0	2.8	0	3.0	3.0	3.4	0
STANDBY	3.0	3.0	0	3.1	3.2	3.3	3.1	3.1	0	3.2	3.1	3.3	0	3.1	0	0	3.1	3.0	3.3	0
Ref No.	IC8001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	0	3.3	2.7	1.7	2.2	1.2	2.5	3.4	0	2.3	0.9	2.3	2.4	3.4	0	2.5	2.0	2.2	1.7	2.4
STANDBY	0	3.3	2.9	0	2.4	1.2	2.6	3.3	0	2.7	0.4	2.6	2.3	3.3	0	2.7	1.8	2.6	1.3	2.3
Ref No.	IC8001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
CD PLAY	2.3	2.6	0.7	1.2	1.8	1.5	2.3	3.4	0	2.3	0.8	2.3	3.3	0	0	2.8	3.3	0.7	3.3	3.3
STANDBY	2.4	2.6	0.4	1.2	2.1	0.8	2.6	3.3	0	2.3	0.9	2.6	3.3	0	3.3	2.8	3.3	0.6	3.3	3.3
Ref No.	IC8001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
CD PLAY	0	3.3	0	0	0	0.5	0	3.0	2.8	3.1	0	1.6	3.1	0	1.7	1.6	1.7	0.1	3.3	0
STANDBY	0	3.3	0	0	0	0.7	0	3.0	0	3.0	0	3.3	3.1	0	1.7	0	0	3.3	0	3.3
Ref No.	IC8001																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
CD PLAY	3.3	0	3.3	3.4	0	0	0	0	1.2	0	0	0	0	0	0	0	0	3.3	3.3	0
STANDBY	3.3	0	0	3.3	0	0	0	0	0	0	0	0	0	0	0	0	0	3.3	0.8	0
Ref No.	IC8001																			
MODE	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
CD PLAY	0	2.1	1.8	0.1	0	1.7	3.3	2.1	2.0	1.8	1.8	0.7	0.7	1.7	1.7	1.7	1.7	3.3	1.9	1.7
STANDBY	2.4	2.1	1.8	-0.1	0	1.7	3.3	2.1	2.1	1.8	1.8	0.7	0.7	1.7	1.6	1.6	1.6	3.3	1.9	1.7
Ref No.	IC8001																			
MODE	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140
CD PLAY	1.4	0	0	0.1	0	1.0	2.2	1.7	2.6	2.6	2.7	2.6	2.6	2.5	2.5	2.4	2.4	2.4	1.7	1.7
STANDBY	1.4	0	0	0	0	0	0	1.7	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.7	1.6
Ref No.	IC8001																			
MODE	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160
CD PLAY	3.4	1.2	1.8	2.2	0	1.7	1.7	1.7	0.4	3.3	0.5	0.4	1.0	1.0	2.3	0.4	0	0.8	3.4	0
STANDBY	3.3	1.2	1.9	2.1	0	1.7	1.7	1.7	0.4	3.3	0.5	0.4	1.0	1.0	2.2	0.4	0	0.8	3.3	0
Ref No.	IC8001																			
MODE	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180
CD PLAY	3.4	0	1.6	0	1.5	1.5	3.4	0.2	1.7	1.6	1.3	1.2	0	0	0	1.3	1.7	3.4	0	3.3
STANDBY	3.3	0	1.6	0	1.5	1.5	3.3	0	1.7	1.6	0	1.2	0	0	0	0	1.7	3.3	0	3.3
Ref No.	IC8001																			
MODE	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200
CD PLAY	0	3.3	0	0	0	0	0	0.1	0.1	3.4	0.1	1.0	1.6	0.7	1.4	3.4	-	-	-	-
STANDBY	0	3.3	0	0	0	0	0	0	0	3.3	0	0.6	0.3	0.3	3.3	3.3	0.3	0.6	0.6	0.6
Ref No.	IC8001																			
MODE	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220
CD PLAY	0.1	3.4	-	-	0.1	-	-	-	3.4	-	-	-	0	2.8	2.8	3.4	2.0	0	1.2	1.5
STANDBY	0	3.3	0.6	0.6	0	0.6	0.6	3.3	3.3	0.6	0.6	0	0	2.9	3.3	3.3	2.2	0	1.2	1.6
Ref No.	IC8001																			
MODE	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240
CD PLAY	0.2	0	1.6	0.2	3.4	1.7	0.1	1.6	0	0	3.4	1.6	0.1	2.4	0	1.2	0	0.1	3.4	3.2
STANDBY	0	0	1.6	0	3.3	1.6	0	1.5	0	0	3.3	1.6	0.1	2.9	0	1.2	0	0	3.3	3.2
Ref No.	IC8001																			
MODE	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256				
CD PLAY	1.6	0	1.6	3.2	3.3	3.4	0	3.3	2.9	0	2.8	2.8	0	3.0	3.4	2.9				
STANDBY	1.6	0	1.6	3.2	3.3	3.3	0	3.3	2.9	0	2.9	2.9	0	3.1	3.3	3.0				
Ref No.	IC8051																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	3.4	3.0	3.4	3.0	3.1	0	3.0	3.1	3.4	3.0	2.9	0	2.8	3.4	2.8	3.3	3.3	3.2	3.2	2.4
STANDBY	3.3	3.1	3.3	3.1	3.1	0	3.1	3.2	3.3	3.0	3.0	0	2.9	3.3	2.9	3.3	3.3	3.2	3.2	2.6
Ref No.	IC8051																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	1.6	0	0.1	0.2	0.2	2.0	3.3	0	1.5	1.6	1.7	1.6	0.1	0.1	0	0	3.4	1.6	2.8	0
STANDBY	1.7	0	0.1	0.2	0.2	2.2	3.3	0	1.6	1.6	1.6	1.5	0.1	0	0	0	3.3	1.6	2.9	0
Ref No.	IC8051																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54						
CD PLAY	0	3.0	3.3	3.0	3.0	0	3.0	3.1	3.3	2.9	2.8	0	2.9	0						
STANDBY	0	3.1	3.3	3.0	3.1	0	3.1	3.2	3.3	2.9	2.9	0	0	0						
Ref No.	IC8111																			
MODE	1	2	3	4	5	6	7	8												
CD PLAY	3.3	0	0	1.9	4.8	0	0	4.8												
STANDBY	3.3	0	0	1.9	4.9	0	0	4.9												
Ref No.	IC8251																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	1.7	1.7	1.7	1.7	1.7	1.7	0	4.8	3.3	0	2.8	2.8	2.8	2.8	2.1	2.1	2.1	2.0	0	0
STANDBY	1.7	1.7	1.7	1.7	1.7	1.7	0	4.9	0	0	2.8	2.8	2.8	2.8	2.1	2.1	2.1	2.1	0	0
Ref No.	IC8251																			
MODE	21	22	23	24	25	26	27	28												
CD PLAY	4.8	9.1	1.7	1.7	1.7	1.7	3.3	3.1												
STANDBY	4.9	9.2	1.7	1.7	1.7	1.7	0	3.1												
Ref No.	IC8271																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	0	7.6	0	7.6	0	0	7.6	0	2.8	2.8	2.8	2.8	2.8	2.8	0.9	0	0.7	0	2.4	0.1
STANDBY	0	0.3	0	0.3	0	0	0.3	0	4.9	4.9	4.9	4.9	4.9	4.9	4.9	0	0	0	4.9	4.8
Ref No.	IC8271																			
MODE	21	22	23	24	25	26	27	28												
CD PLAY	1.7	1.6	3.3	1.6	4.8	0	9.2	9.2												
STANDBY	1.7	1.7	0	3.3	4.9	0	9.3	9.3												
Ref No.	IC8451																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	3.3	3.3	0	0	0	0	0	0	2.4	2.5	2.4	2.5	2.4	2.5	2.5	2.5	0	5.0	0	2.5
STANDBY	0	0	0	0	0	0	0	0	2.4	2.5	2.4	2.5	2.4	2.5	2.5	2.5	0	5.0	0	2.4

Ref No.	IC8451																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	0	5.0	0	5.0	0	5.0	0	5.0	0	3.3	1.3	3.3	0.3	3.3	2.8	3.3	3.1	1.7	1.7	1.7
STANDBY	0	5.0	0	5.0	0	5.0	0	5.0	0	0	0	0	0.3	3.3	2.8	3.3	3.1	1.7	1.8	1.6

Ref No.	IC8451																			
MODE	41	42	43	44	45	46	47	48												
CD PLAY	1.7	0	3.3	0	1.3	0	0	3.3												
STANDBY	1.7	0	3.3	0	0	0	0	0												

Ref No.	IC8601																			
MODE	1	2	3																	
CD PLAY	0	3.1	3.4																	
STANDBY	0	3.1	3.3																	

Ref No.	IC8605																			
MODE	1	2	3	4	5															
CD PLAY	0.6	1.2	0	0	1.1															
STANDBY	0.6	1.2	0	0	1.1															

Ref No.	IC8611																			
MODE	1	2	3	4	5	6	7	8												
CD PLAY	0	0	0	0	3.3	3.3	0	3.3												
STANDBY	0	0	0	0	3.3	3.3	0	3.3												

Ref No.	IC8651																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	1.4	2.3	2.6	2.5	2.2	2.4	2.2	2.2	1.7	0	3.4	3.1	0	3.4	0.6	0.9	0.7	2.3	2.5	2.4
STANDBY	0.8	2.6	2.7	2.6	2.2	2.3	2.4	2.4	2.1	0	3.3	3.1	0	3.3	0.6	0.5	0.4	0	2.7	2.3

Ref No.	IC8651																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	1.7	0.8	2.0	1.7	2.7	2.2	0	2.3	0.9	0.7	1.0	0.8	1.5	0.9	1.4	1.3	3.4	1.3	0.9	1.5
STANDBY	2.0	0.9	1.8	1.3	2.9	2.5	0	2.6	0.9	0.6	1.1	0.7	1.6	0.8	1.5	1.4	3.3	1.4	0.7	1.3

Ref No.	IC8651																			
MODE	41	42	43	44	45	46	47	48												
CD PLAY	1.4	1.4	1.8	1.6	1.9	0	3.4	2.2												
STANDBY	1.3	1.6	1.8	1.6	1.9	0	3.3	2.7												

Ref No.	IC8691																			
MODE	1	2	3	4	5															
CD PLAY	3.0	3.0	0	4.3	4.8															
STANDBY	3.0	3.0	0	4.4	4.9															

Ref No.	IC8695																			
MODE	1	2	3	4	5															
CD PLAY	2.8	2.8	0	4.0	4.8															
STANDBY	2.9	2.9	0	4.2	4.9															

Ref No.	Q8550				Q8551				Q8552				Q8560				Q8561			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	4.9	4.9	4.2		0	4.9	0.1		4.9	0	4.9		0	0.1	0.7		0.4	3.7	1.0	
STANDBY	5.0	4.9	4.3		0	4.9	0		4.9	0	4.9		0	0.1	0.7		0	4.9	0	

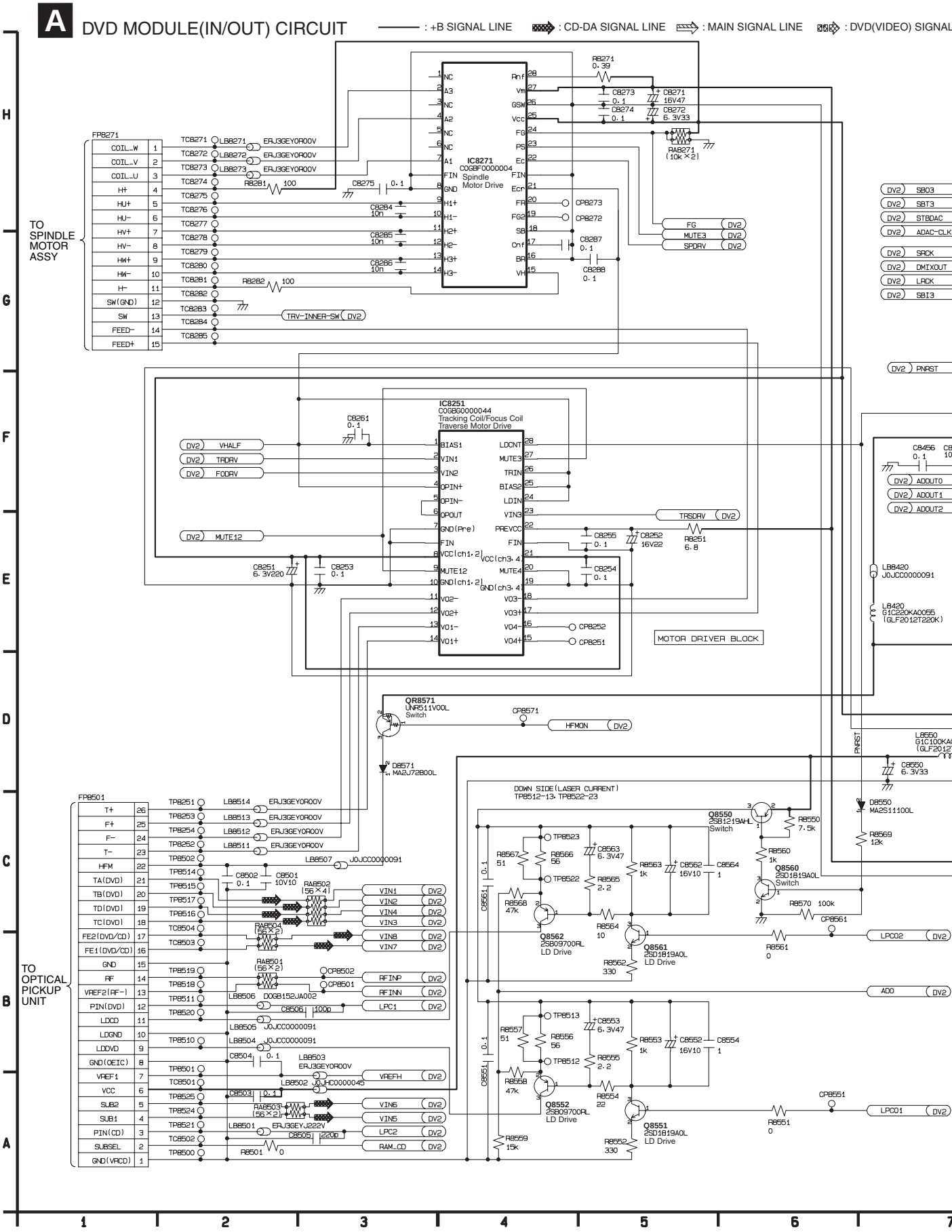
Ref No.	Q8562				Q8605				Q8606				QR8420				QR8571			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	4.3	2.2	3.7		0	0.1	0.6		0	3.1	0.1		0	2.8	0		3.4	3.3	0.1	
STANDBY	4.9	0	4.9		0	0.1	0.6		0	3.1	0.1		0	0	3.3		3.3	-0.3	3.3	

Ref No.	Q9103																			
MODE	1	2	3	4																
CD PLAY	3.7	2.5	0	0.2																
STANDBY	3.7	2.5	0	0.2																

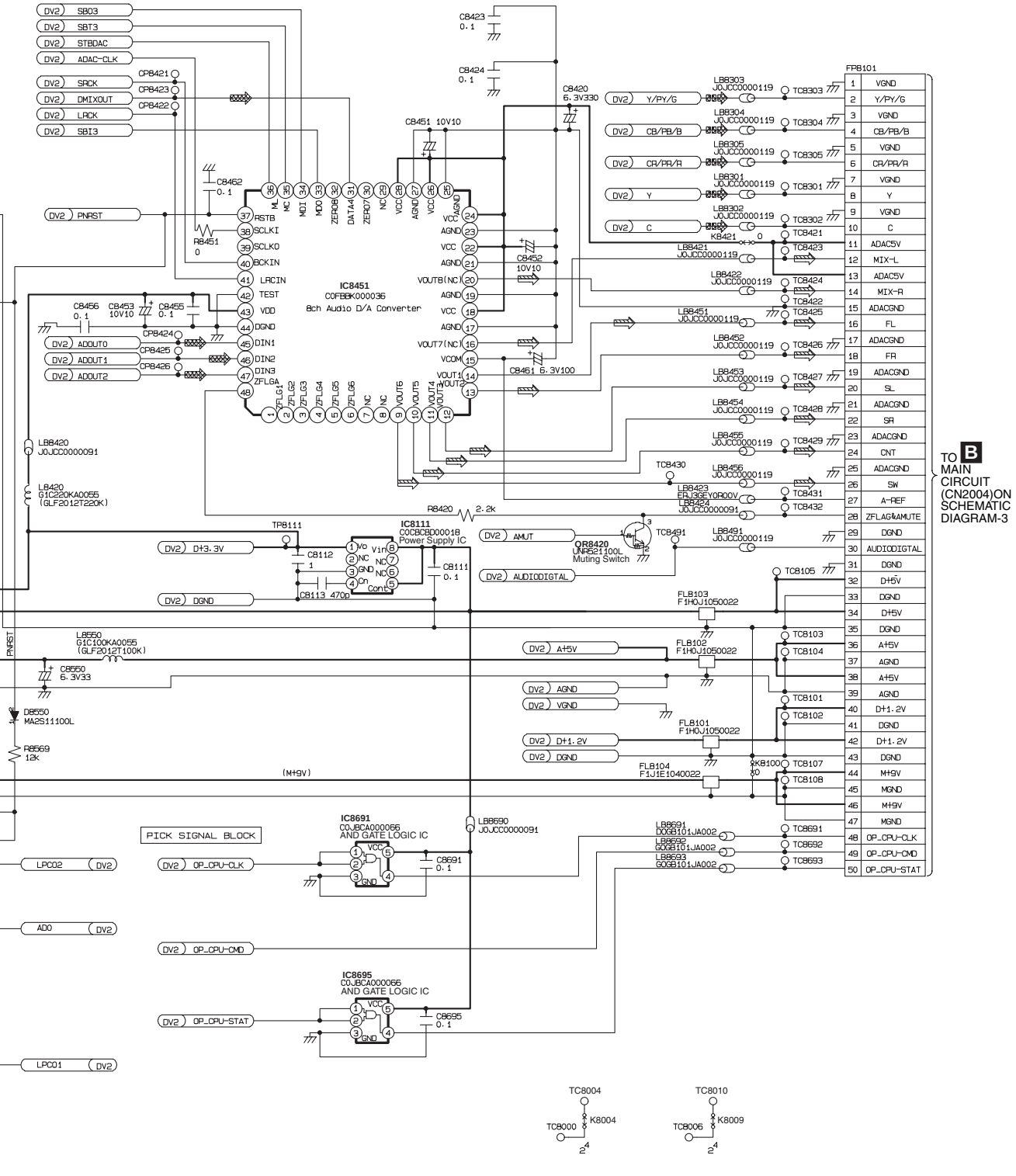
Ref No. / MODE	Q9101					Q9102														
	1	2	3	4		1	2	3	4											
CD PLAY	1.2	0	4.8	0		2.5	1.2	0.1	0											
STANDBY	1.2	0	4.8	0		2.5	1.2	0.1	0											

20 Schematic Diagram

SCHEMATIC DIAGRAM-1



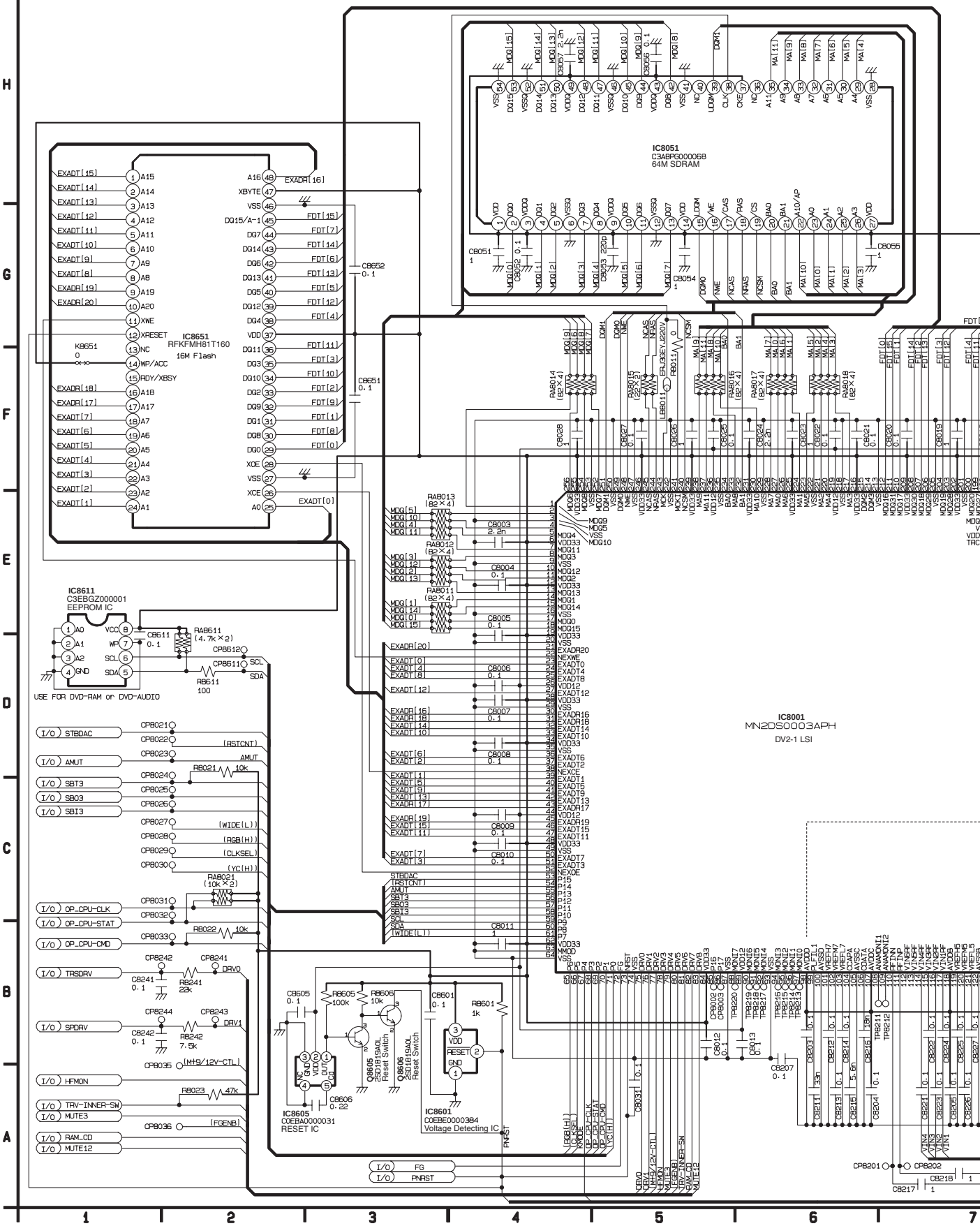
DVD(VIDEO) SIGNAL LINE : DVD(AUDIO) SIGNAL LINE



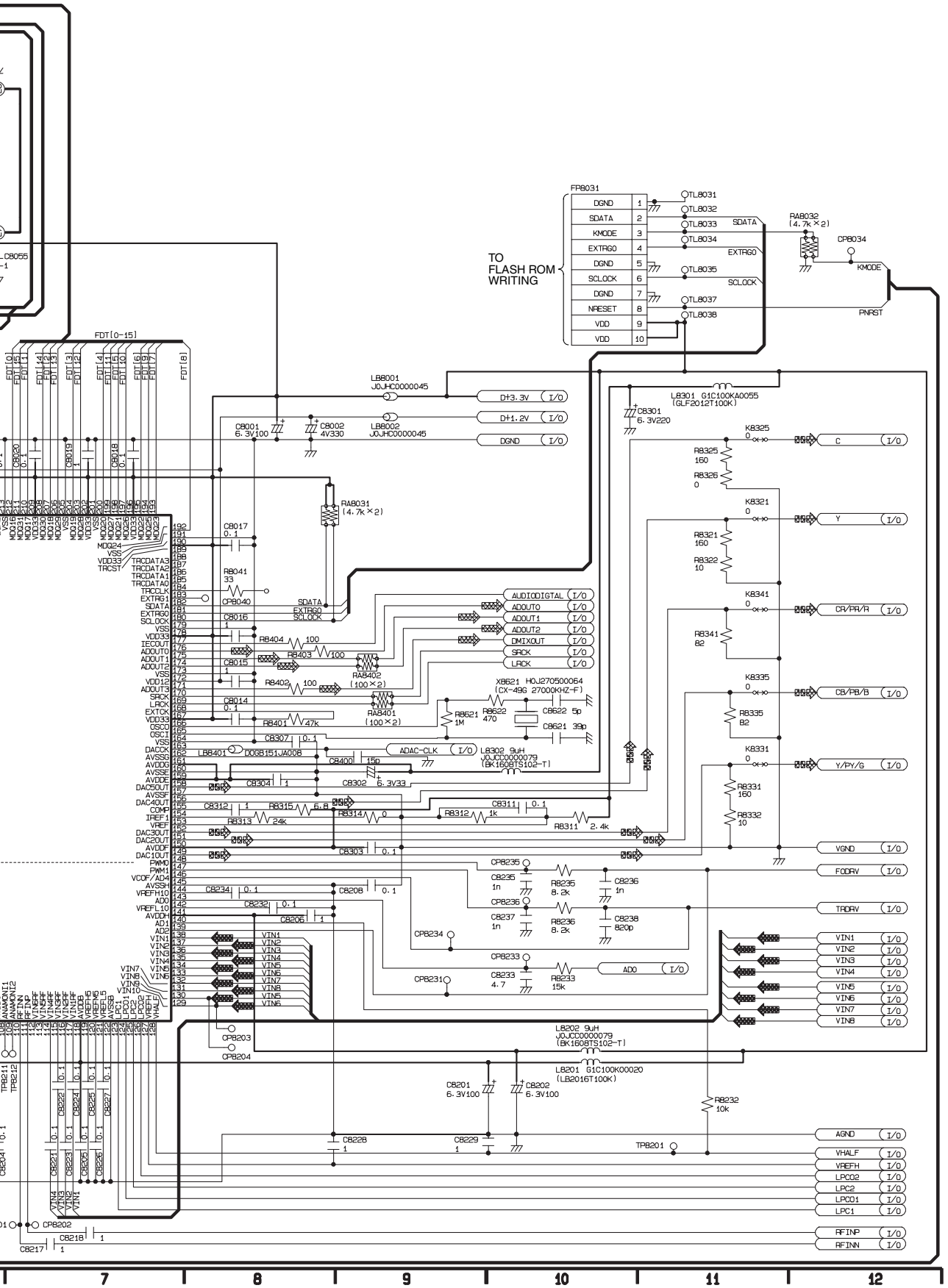
SCHEMATIC DIAGRAM-2

A DVD MODULE(DV2) CIRCUIT

: +B SIGNAL LINE : CD-DA SIGNAL LINE : DVD(VIDEO) SIGNAL LINE : DVD(AUDIO) S



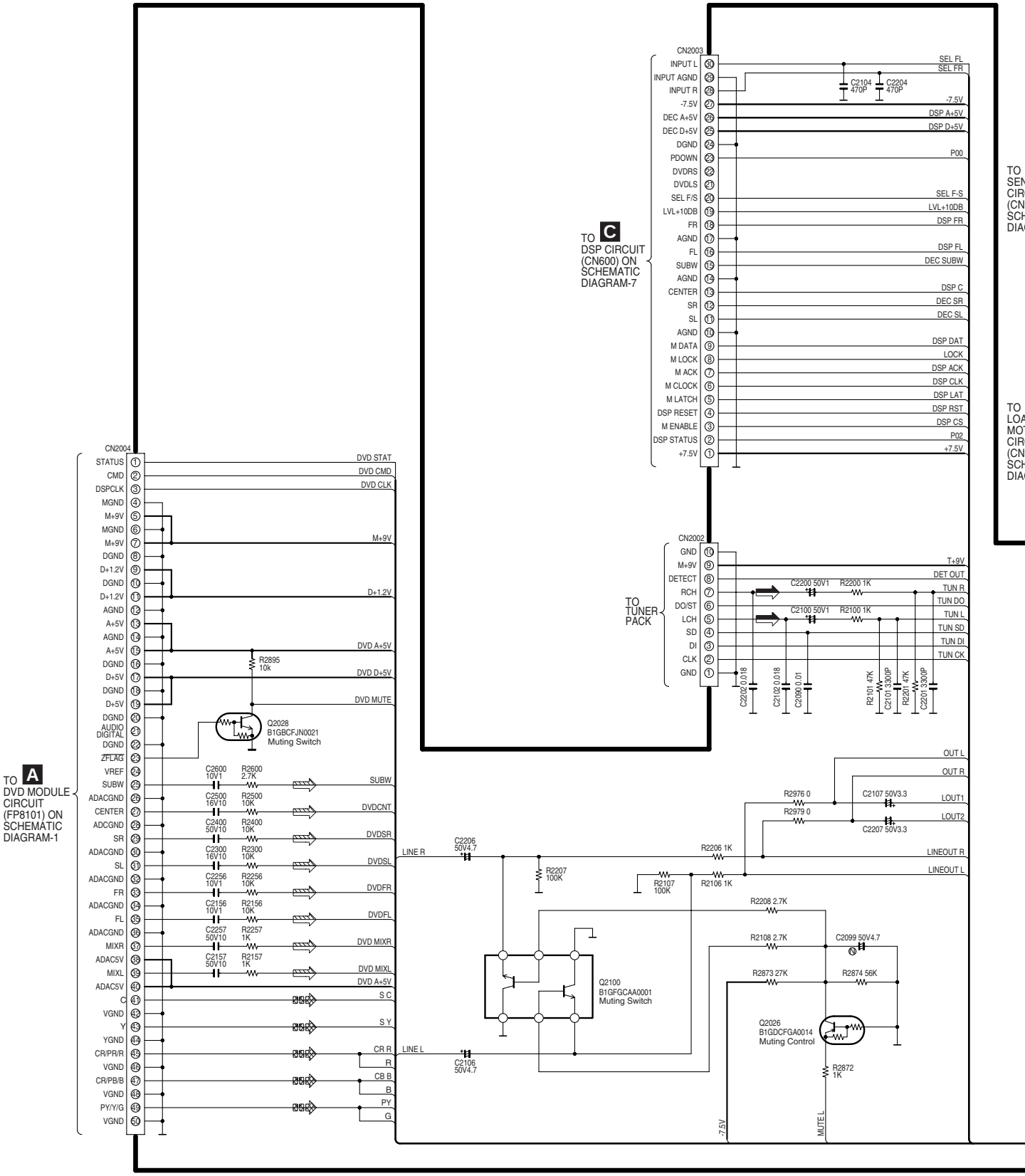
: DVD(AUDIO) SIGNAL LINE



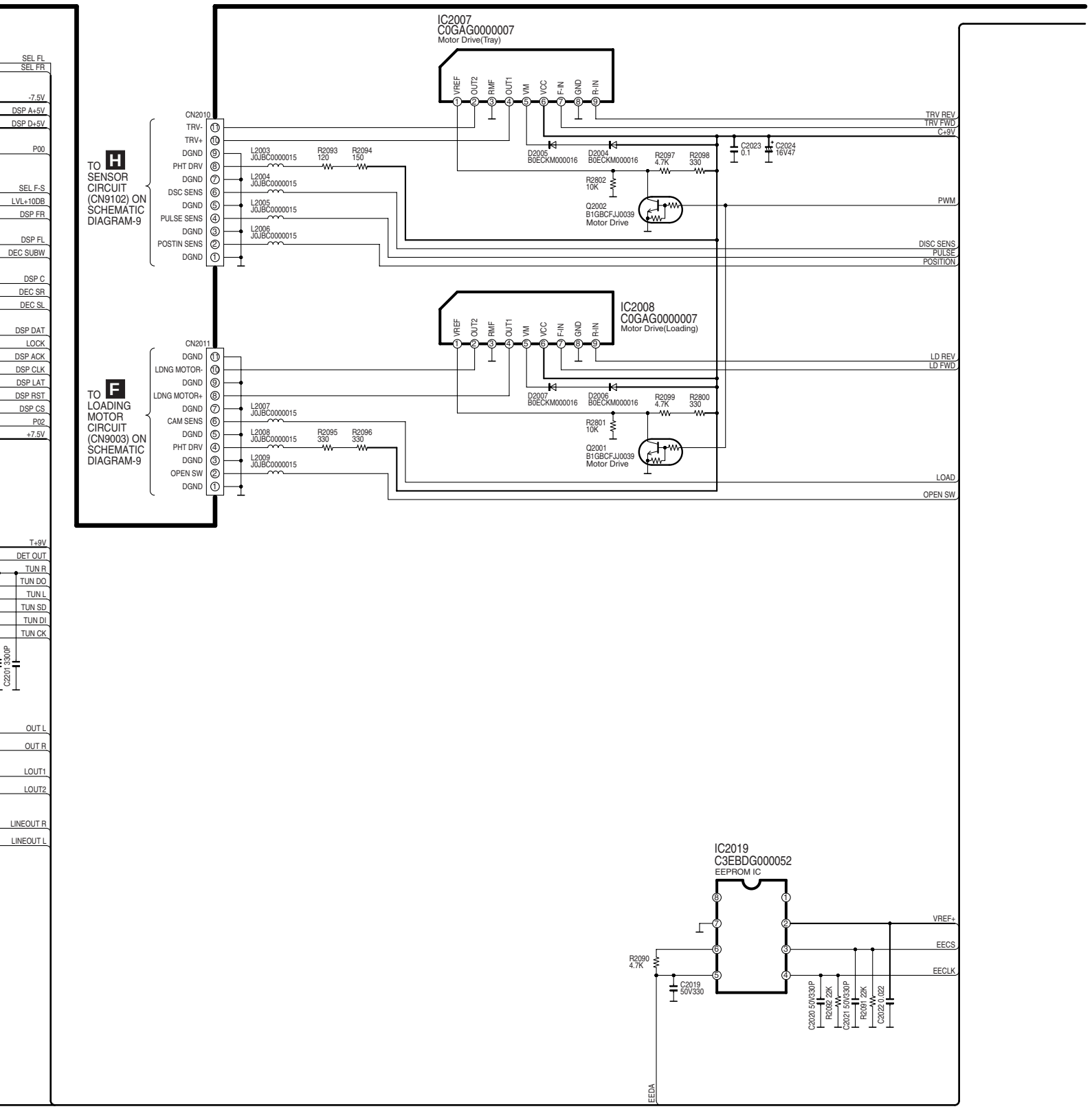
SCHEMATIC DIAGRAM-3

B MAIN CIRCUIT

: +B SIGNAL LINE : MAIN SIGNAL LINE : DVD(VIDEO) SIGNAL LINE : FM/AM SIGNAL LINE



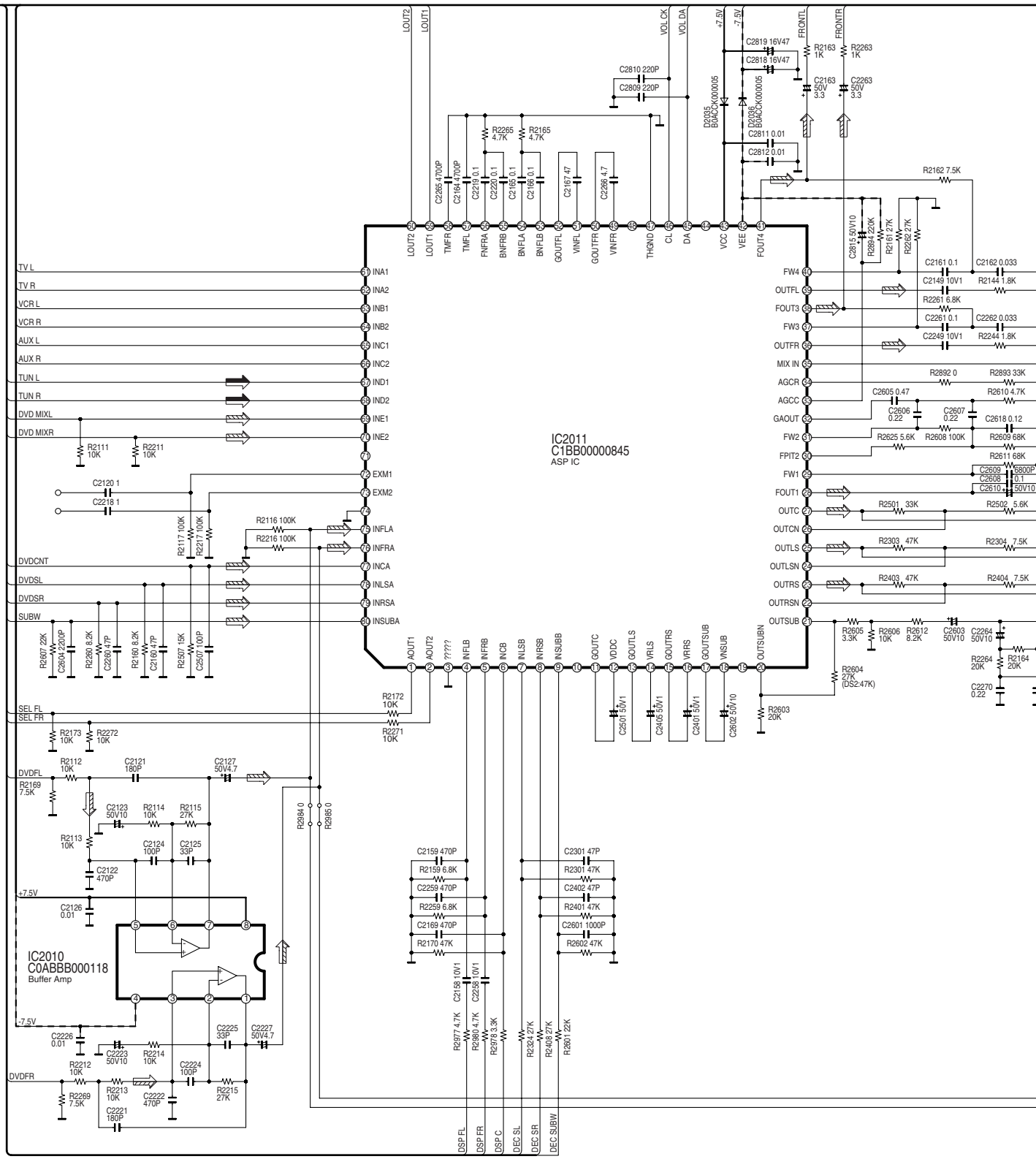
/AM SIGNAL LINE

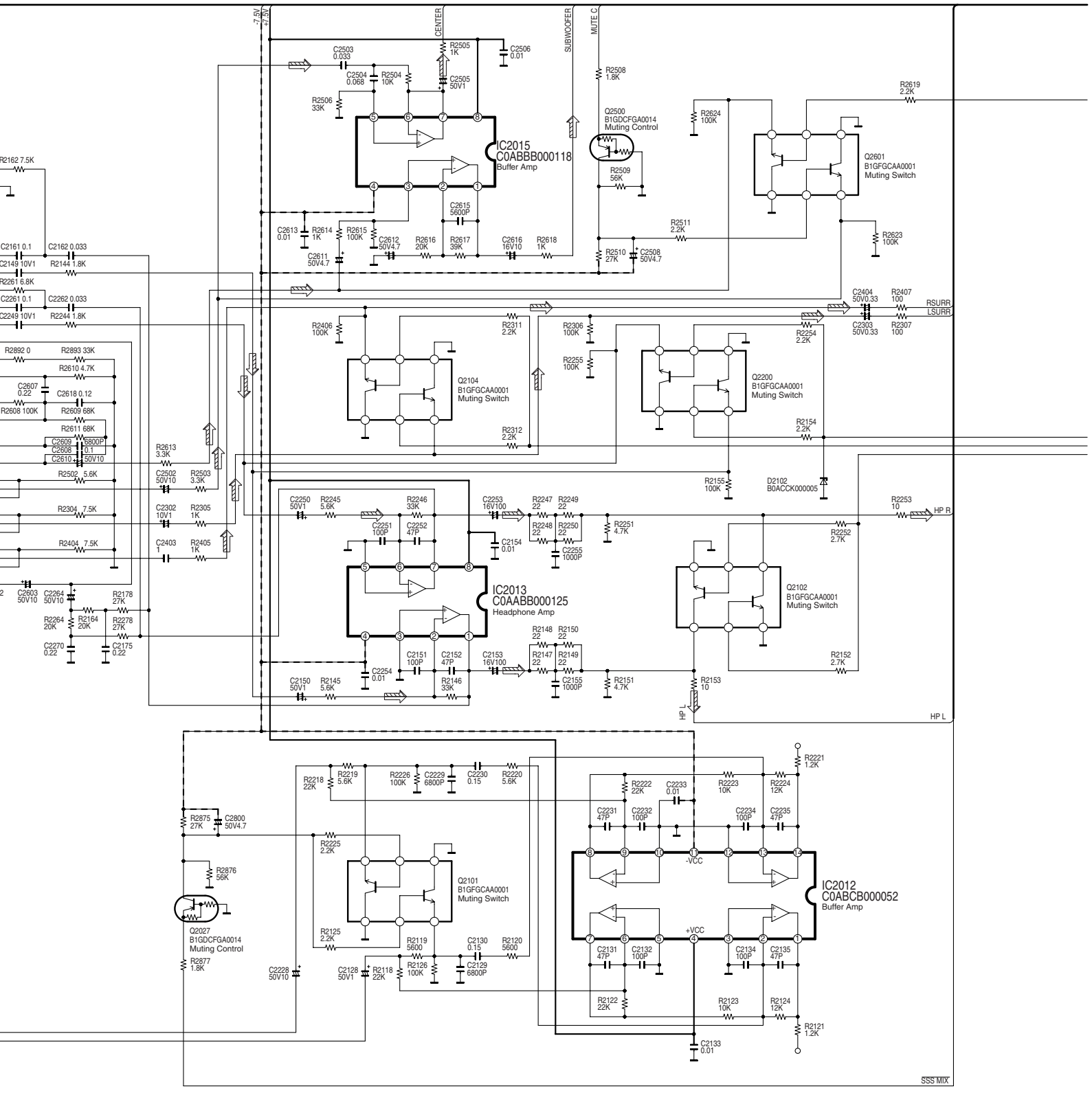


SCHEMATIC DIAGRAM-4

B MAIN CIRCUIT

: +B SIGNAL LINE : -B SIGNAL LINE : MAIN SIGNAL LINE : FM/AM SIGNAL LINE

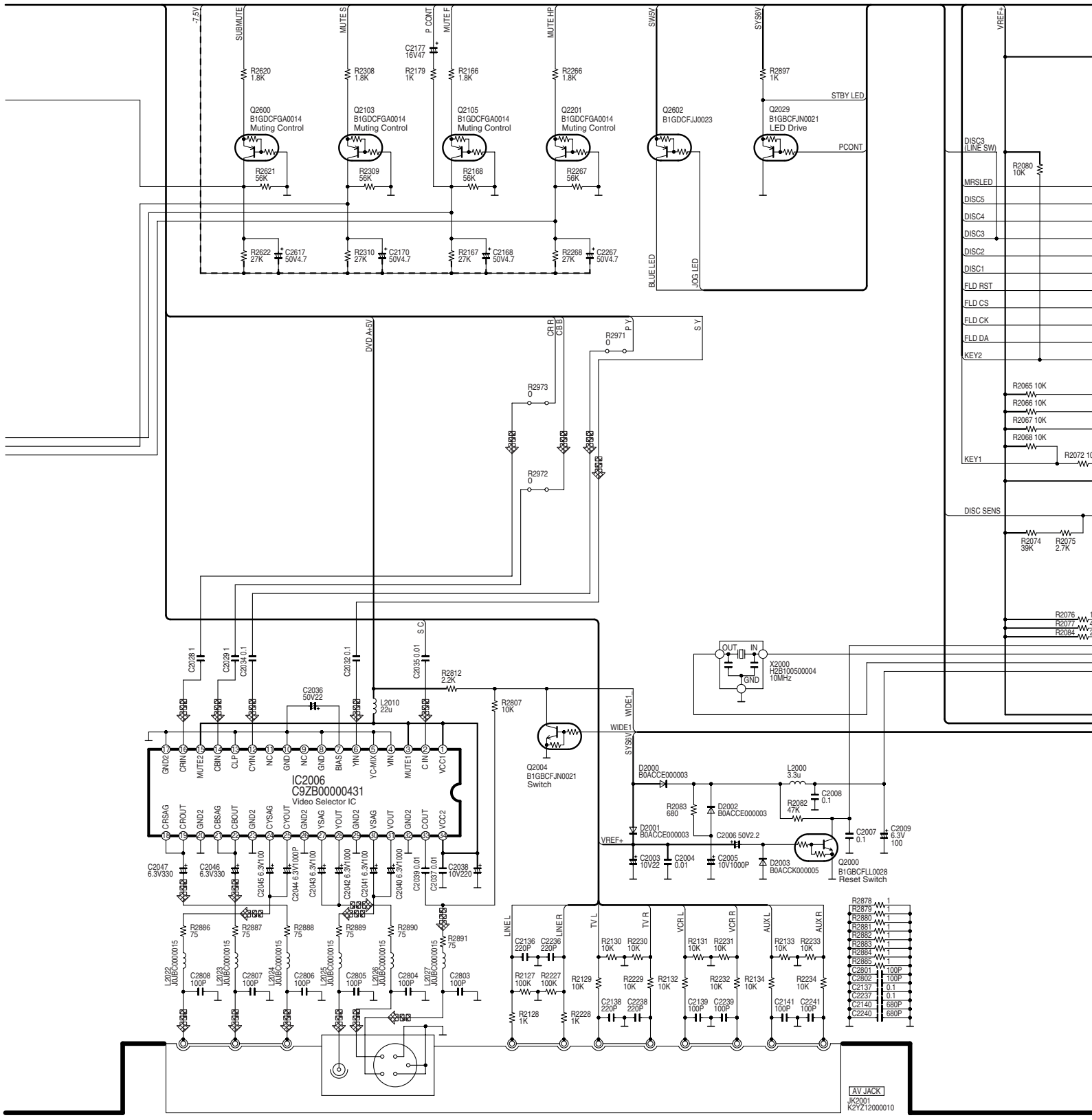


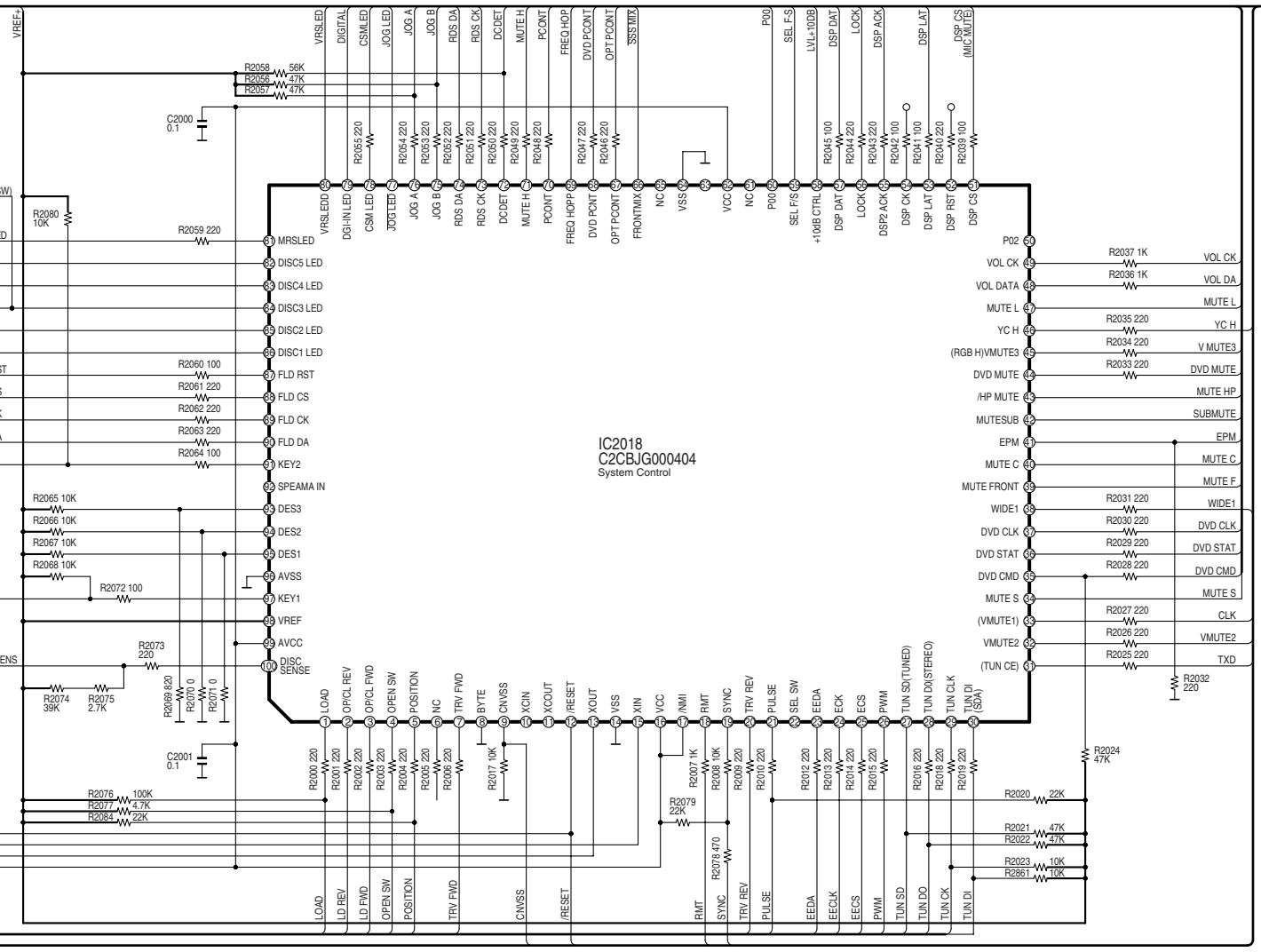

-7.5V
+7.5V
CENTER
SUBWOOFER
MUTE C
IC2015
C0ABBB000118
Buffer Amp
Q2500
B1GDCFGA0014
Muting Control
Q2601
B1GFGCAA0001
Muting Switch
Q2104
B1GFGCAA0001
Muting Switch
Q2200
B1GFGCAA0001
Muting Switch
IC2013
C0AABB000125
Headphone Amp
Q2102
B1GFGCAA0001
Muting Switch
D2102
B0ACCK000005
IC2012
C0ABCB000052
Buffer Amp
Q2101
B1GFGCAA0001
Muting Switch
Q2027
B1GDCFGA0014
Muting Control
-VCC
+VCC
RSURR
LSURR
HP R
HP L
SSS MIX

SCHEMATIC DIAGRAM-5

B MAIN CIRCUIT

: +B SIGNAL LINE : -B SIGNAL LINE : DVD(VIDEO) SIGNAL LINE

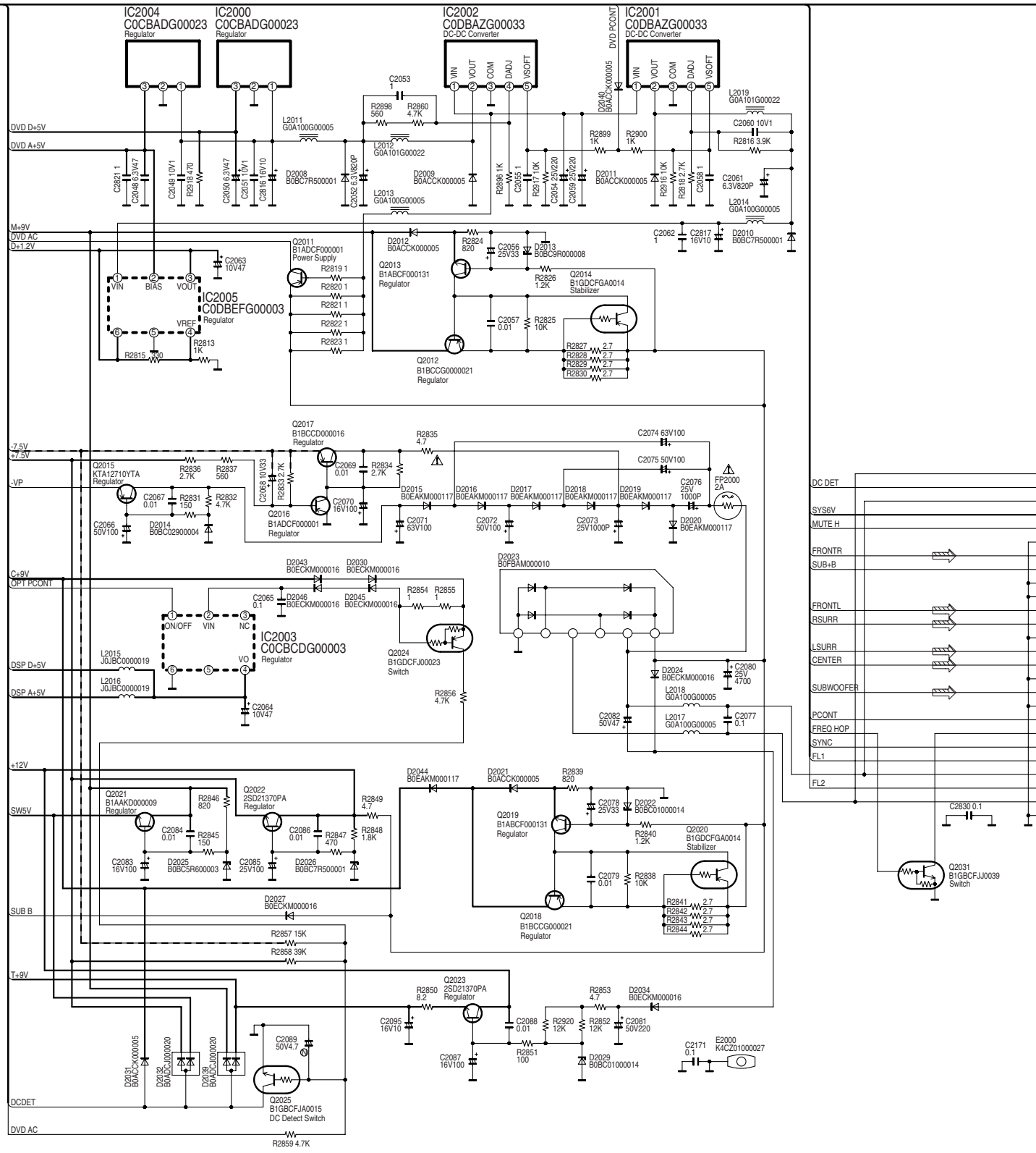


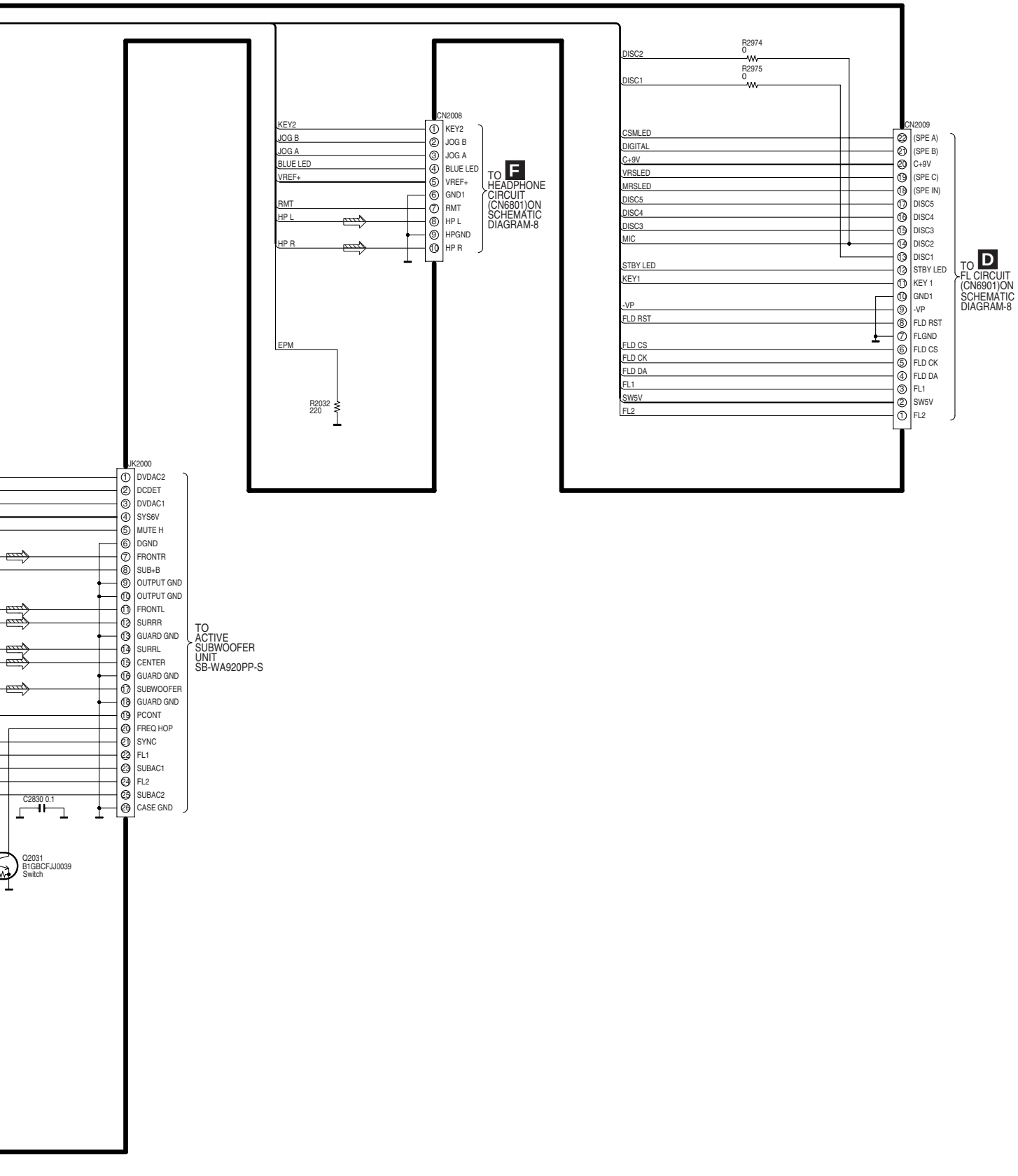

IC2018
C2CBJG000404
System Control
VREF+
VRSLED
DIGITAL
CSMLED
JOG LED
JOG A
JOG B
RDS DA
RDS CK
DCDET
MUTE H
PCONT
FREQ HOP
DVD PCONT
OPT PCONT
SSSTMIX
P00
SEL F/S
LVL+10DB
DSP DAT
LOCK
DSP ACK
DSP LAT
DSP CS (MIC MUTE)
R2058 56K
R2056 47K
R2057 47K
C2000 0.1
R2080 10K
R2059 220
R2060 100
R2061 220
R2062 220
R2063 220
R2064 100
R2065 10K
R2066 10K
R2067 10K
R2068 10K
R2072 100
R2073 220
R2074 39K
R2075 2.7K
R2069 820
R2070 0
R2071 0
C2001 0.1
R2076 100K
R2077 4.7K
R2084 22K
R2000 220
R2001 220
R2002 220
R2003 220
R2004 220
R2005 220
R2006 220
R2017 10K
R2007 1K
R2008 10K
R2009 220
R2010 220
R2012 220
R2013 220
R2014 220
R2015 220
R2016 220
R2018 220
R2019 220
R2079 22K
R2078 470
R2020 22K
R2021 47K
R2022 47K
R2023 10K
R2861 10K
R2024 47K
R2037 1K
R2036 1K
R2035 220
R2034 220
R2033 220
R2031 220
R2030 220
R2029 220
R2028 220
R2027 220
R2026 220
R2025 220
R2032 220
MRSLED
DISC5 LED
DISC4 LED
DISC3 LED
DISC2 LED
DISC1 LED
FLD RST
FLD CS
FLD CK
FLD DA
KEY2
SPEAMA IN
DES3
DES2
DES1
AVSS
KEY1
VREF
AVCC
DISC SENSE
LOAD
OP/CL REV
OP/CL FWD
OPEN SW
POSITION
NC
TRV FWD
BYTE
CNVSS
XCIN
XCOUT
/RESET
XOUT
VSS
XIN
VCC
/NMI
RMT
SYNC
TRV REV
PULSE
SEL SW
EEDA
ECK
ECS
PWM
TUN SD(TUNED)
TUN DO(STEREO)
TUN CLK
TUN DI (SDA)
P02
VOL CK
VOL DATA
MUTE L
YC H
(RGB H)VMUTE3
DVD MUTE
/HP MUTE
MUTESUB
EPM
MUTE C
MUTE FRONT
WIDE1
DVD CLK
DVD STAT
DVD CMD
MUTE S
(VMUTE1)
VMUTE2
(TUN CE)
VOL CK
VOL DA
MUTE L
YC H
V MUTE3
DVD MUTE
MUTE HP
SUBMUTE
EPM
MUTE C
MUTE F
WIDE1
DVD CLK
DVD STAT
DVD CMD
MUTE S
CLK
VMUTE2
TXD
LOAD
LD REV
LD FWD
OPEN SW
POSITION
TRV FWD
CNVSS
/RESET
RMT
SYNC
TRV REV
PULSE
EEDA
EECLK
EECS
PWM
TUN SD
TUN DO
TUN CK
TUN DI

SCHEMATIC DIAGRAM-6

B MAIN CIRCUIT

——— : +B SIGNAL LINE - - - - - : -B SIGNAL LINE ⇨ : MAIN SIGNAL LINE

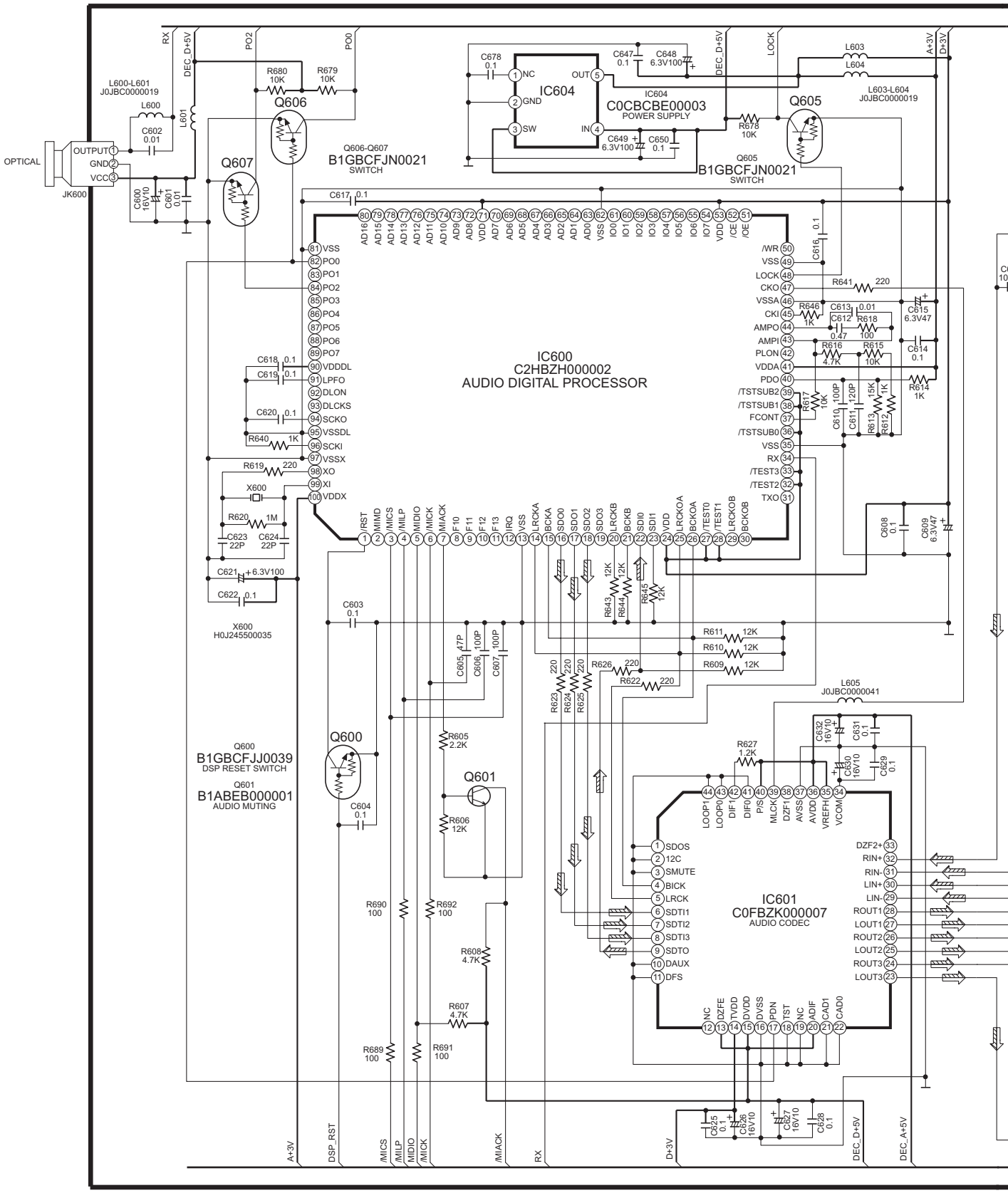


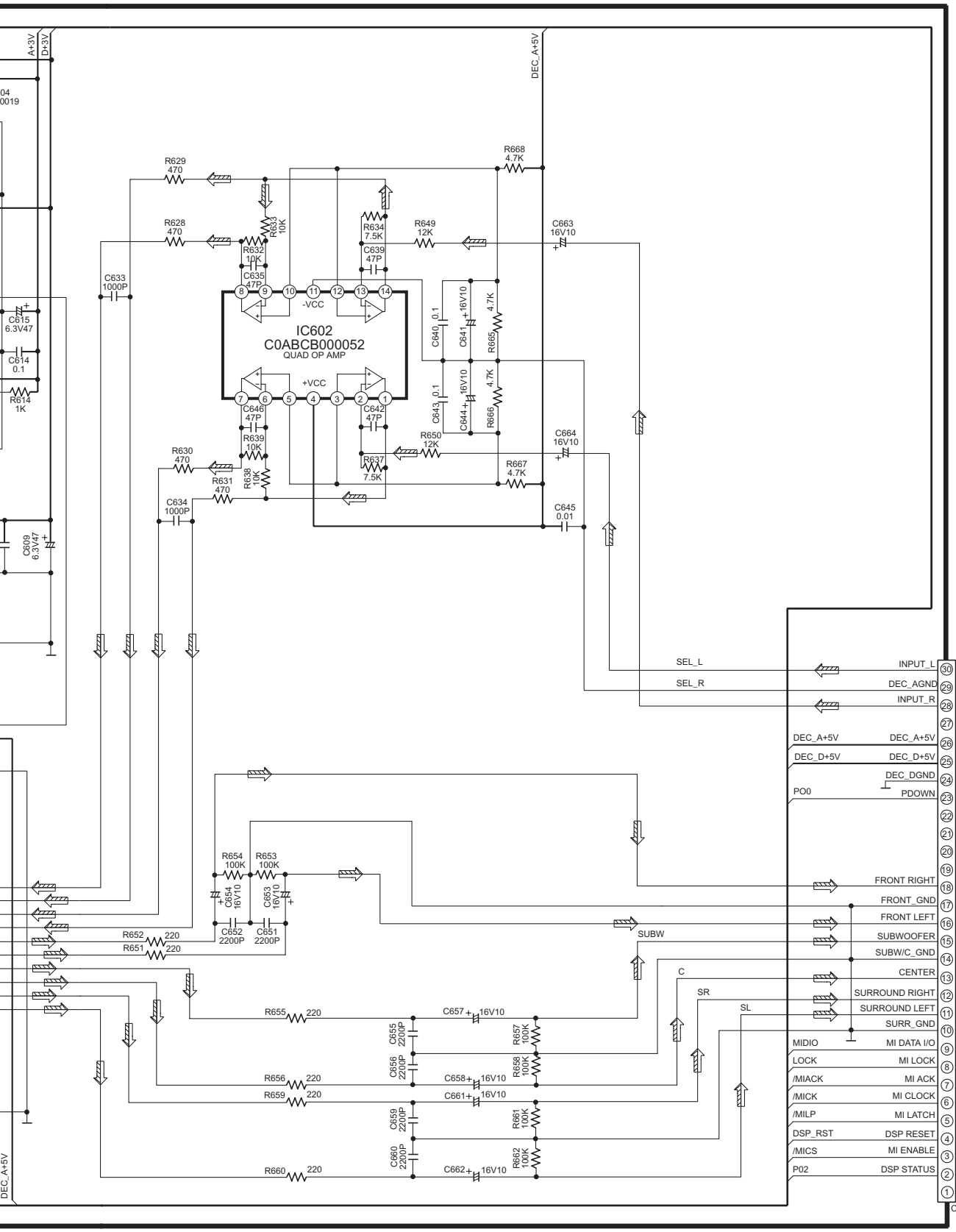

KEY2
JOG B
JOG A
BLUE LED
VREF+
RMT
HP L
HP R
EPM
R2032
220
CN2008
KEY2
JOG B
JOG A
BLUE LED
VREF+
GND1
RMT
HP L
HPGND
HP R
TO F
HEADPHONE
CIRCUIT
(CN6801)ON
SCHEMATIC
DIAGRAM-8
DISC2
DISC1
R2974
0
R2975
0
CSMLED
DIGITAL
C+9V
VRSLED
MRSLED
DISC5
DISC4
DISC3
MIC
STBY LED
KEY1
-VP
FLD RST
FLD CS
FLD CK
FLD DA
FL1
SW5V
FL2
CN2009
(SPE A)
(SPE B)
C+9V
(SPE C)
(SPE IN)
DISC5
DISC4
DISC3
DISC2
DISC1
STBY LED
KEY 1
GND1
-VP
FLD RST
FLGND
FLD CS
FLD CK
FLD DA
FL1
SW5V
FL2
TO D
FL CIRCUIT
(CN6901)ON
SCHEMATIC
DIAGRAM-8
JK2000
DVDAC2
DCDET
DVDAC1
SYS6V
MUTE H
DGND
FRONTR
SUB+B
OUTPUT GND
OUTPUT GND
FRONTL
SURRR
GUARD GND
SURRL
CENTER
GUARD GND
SUBWOOFER
GUARD GND
PCONT
FREQ HOP
SYNC
FL1
SUBAC1
FL2
SUBAC2
CASE GND
TO
ACTIVE
SUBWOOFER
UNIT
SB-WA920PP-S
C2830 0.1
Q2031
B1GBCFJJ0039
Switch

CHEMATIC DIAGRAM - 7

—— : +B SIGNAL LINE – – : -B SIGNAL LINE ⇨ : MAIN SIGNAL LINE

C DSP CIRCUIT

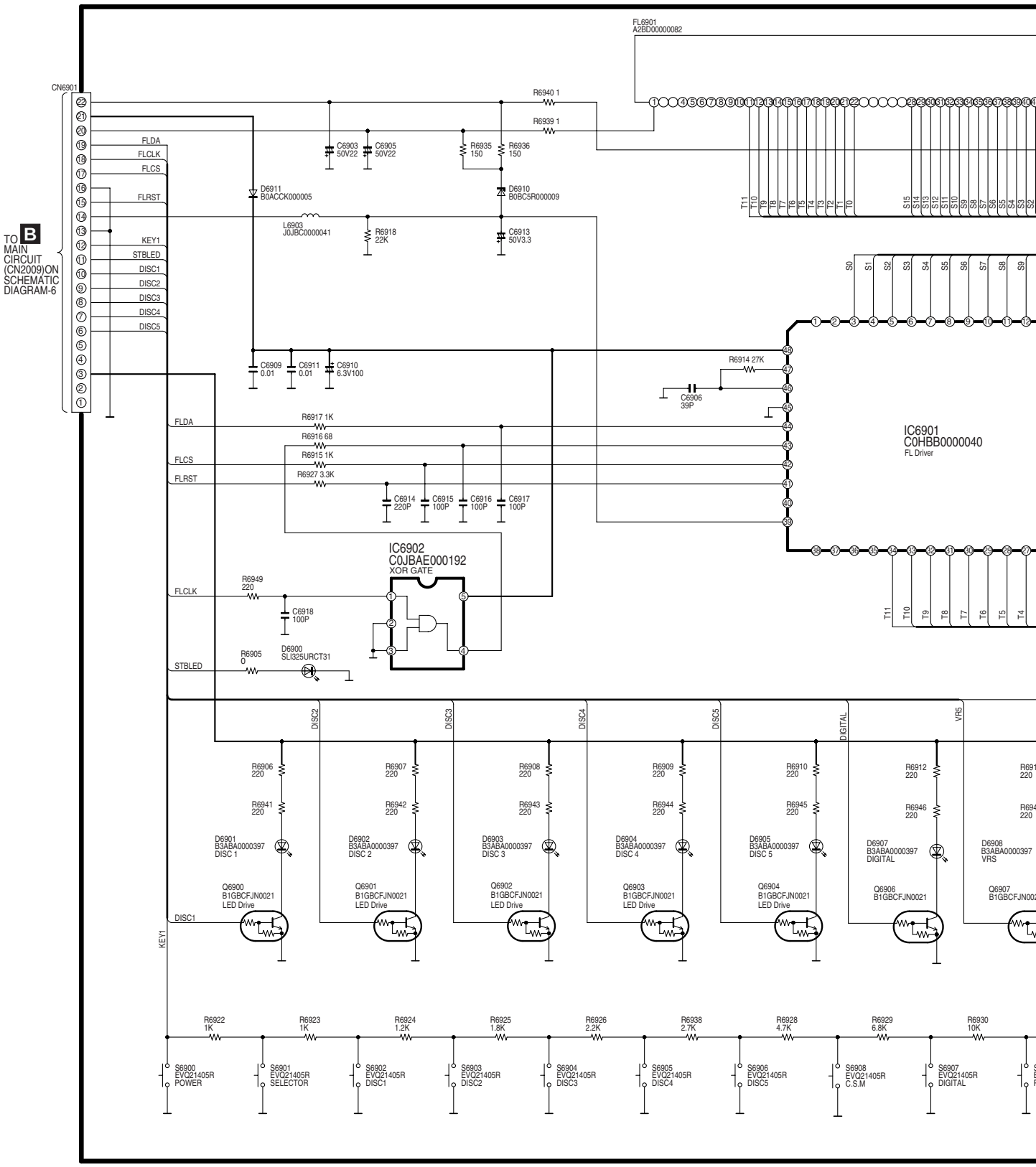


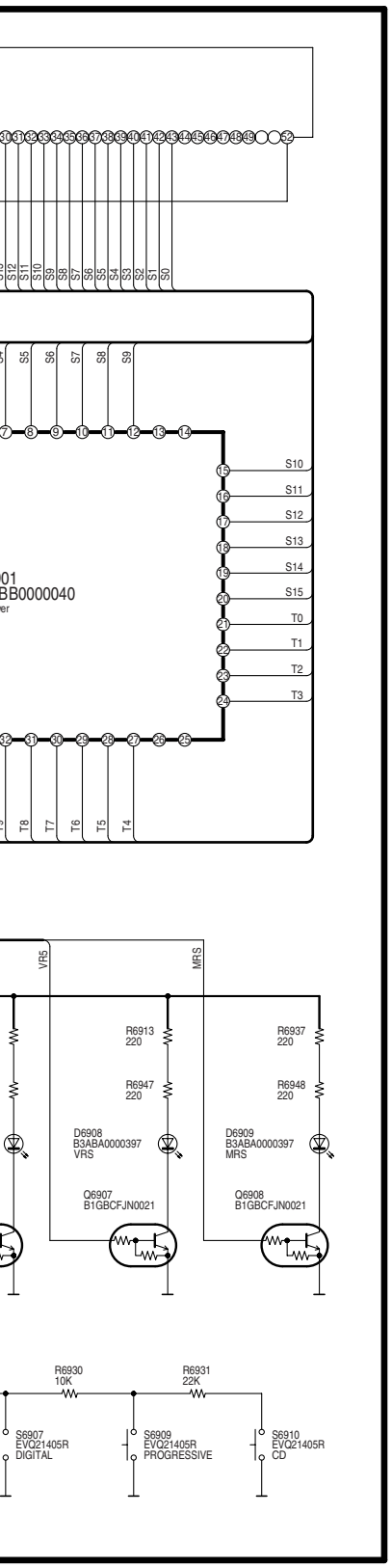

A+3V
D+3V
DEC_A+5V
IC602
C0ABCB000052
QUAD OP AMP
-VCC
+VCC
R629 470
R628 470
R633 10K
R632 10K
R634 7.5K
C639 47P
R649 12K
C663 16V10
R668 4.7K
C633 1000P
C635 47P
C615 6.3V47
C614 0.1
R614 1K
C640 0.1
C641 16V10
R665 4.7K
C643 0.1
C644 16V10
R666 4.7K
C646 47P
C642 47P
R639 10K
R638 10K
R637 7.5K
R650 12K
C664 16V10
R667 4.7K
C645 0.01
R630 470
R631 470
C634 1000P
C609 6.3V47
SEL_L
SEL_R
INPUT_L
DEC_AGND
INPUT_R
DEC_A+5V
DEC_D+5V
DEC_DGND
PO0
PDOWN
R654 100K
R653 100K
C654 16V10
C653 16V10
C652 2200P
C651 2200P
R652 220
R651 220
FRONT RIGHT
FRONT_GND
FRONT LEFT
SUBWOOFER
SUBW/C_GND
CENTER
SURROUND RIGHT
SURROUND LEFT
SURR_GND
SUBW
C
SR
SL
R655 220
C657 16V10
C655 2200P
R657 100K
C656 2200P
R658 100K
R656 220
C658 16V10
R659 220
C661 16V10
C659 2200P
R661 100K
C660 2200P
R662 100K
R660 220
C662 16V10
MIDIO
MI DATA I/O
LOCK
MI LOCK
/MIACK
MI ACK
/MICK
MI CLOCK
/MILP
MI LATCH
DSP_RST
DSP RESET
/MICS
MI ENABLE
P02
DSP STATUS
CN600
TO B
MAIN CIRCUIT
(CN2003) ON
SCHEMATIC
DIAGRAM - 3

SCHEMATIC DIAGRAM-8

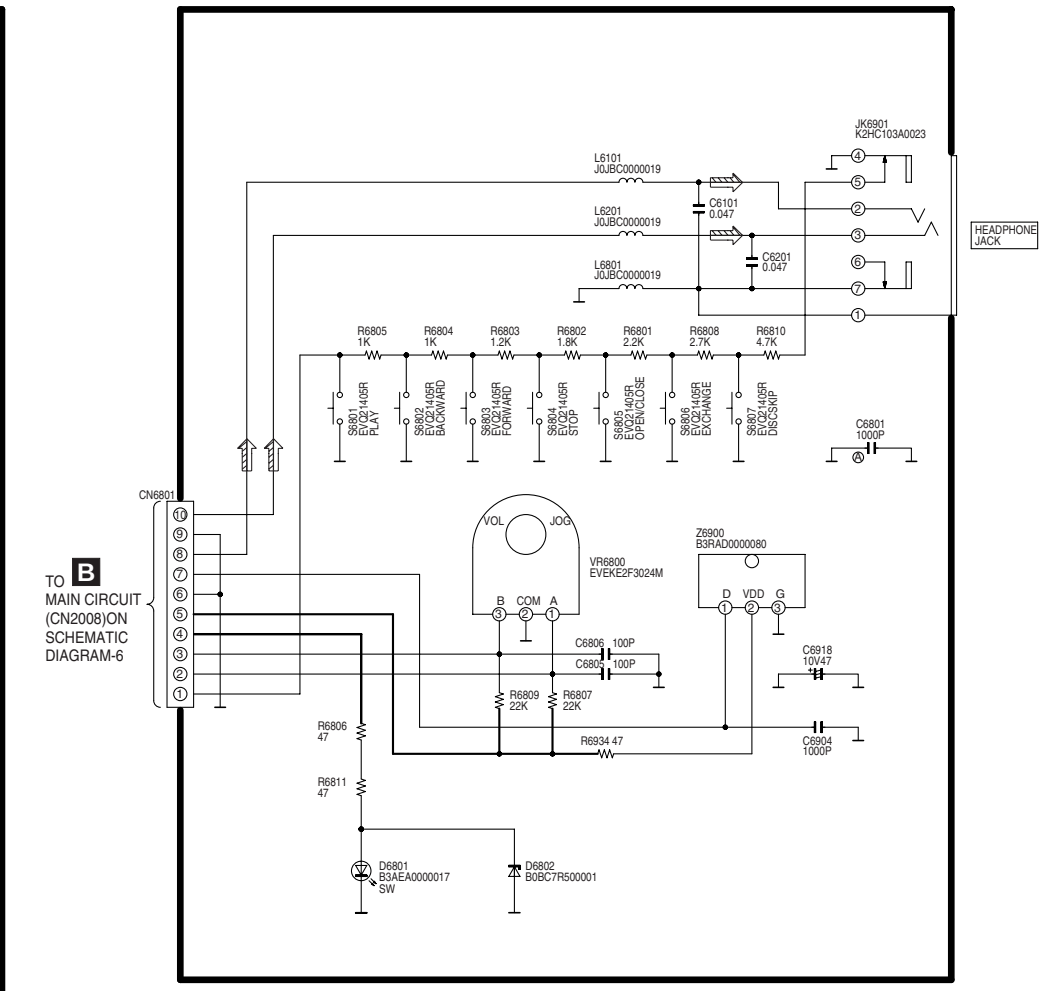
D FL CIRCUIT

——— : +B SIGNAL LINE ⇨ : MAIN SIGNAL LINE

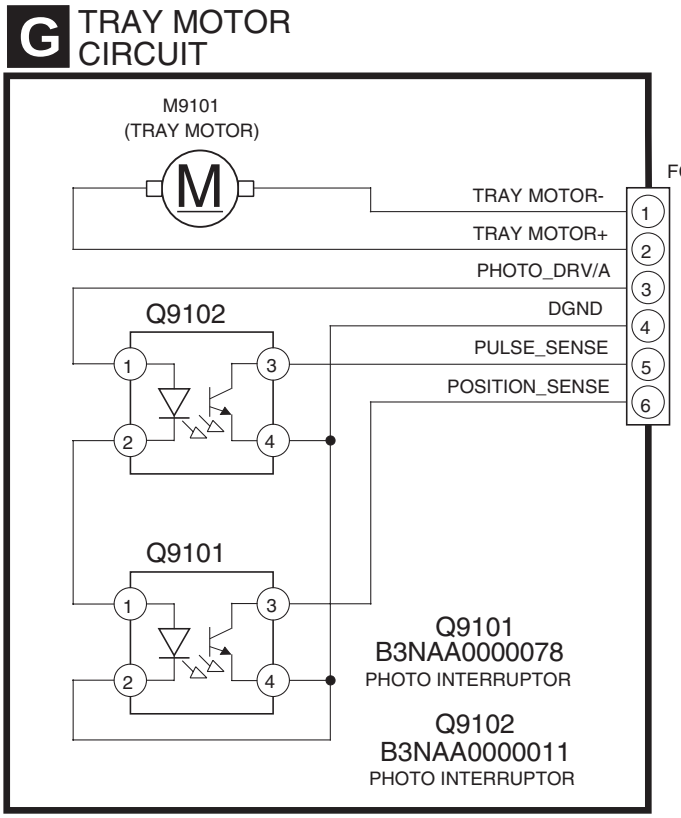


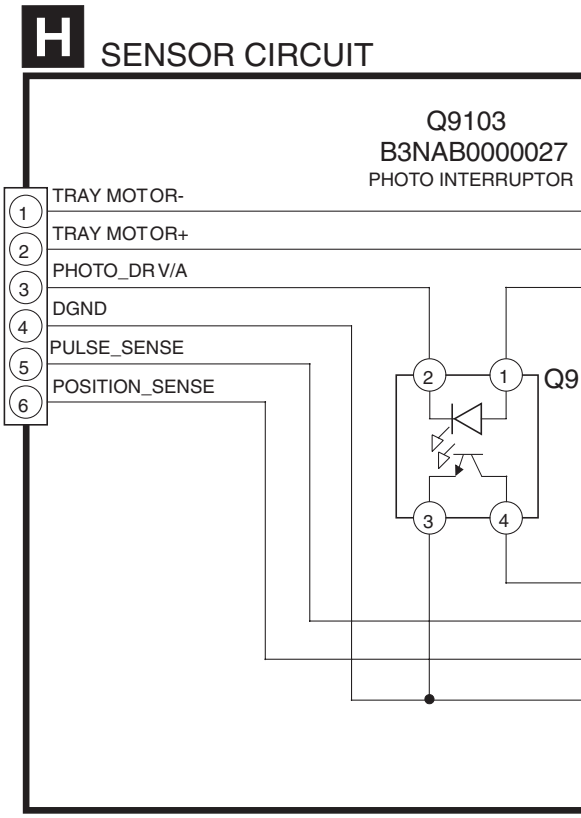


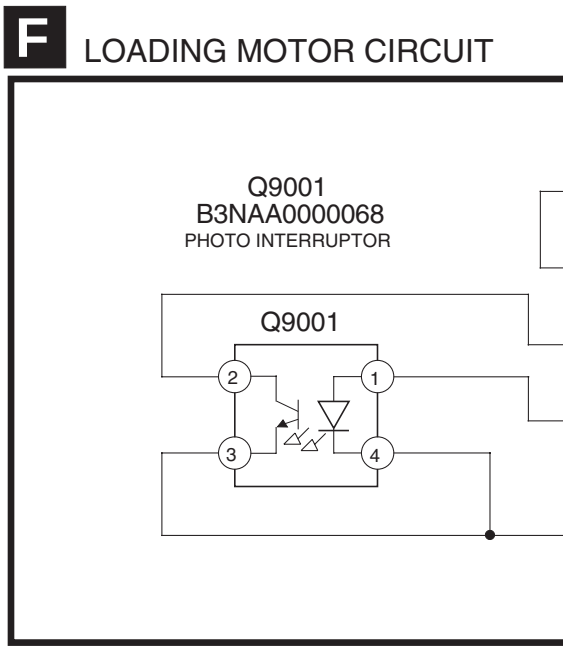
E HEADPHONE CIRCUIT

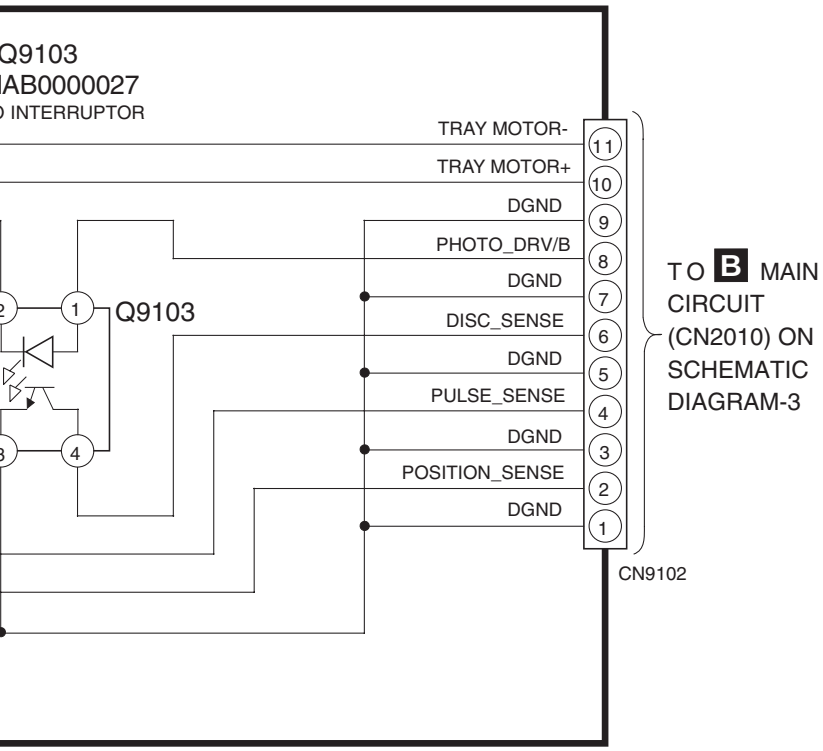


SCHEMATIC DIAGRAM-9

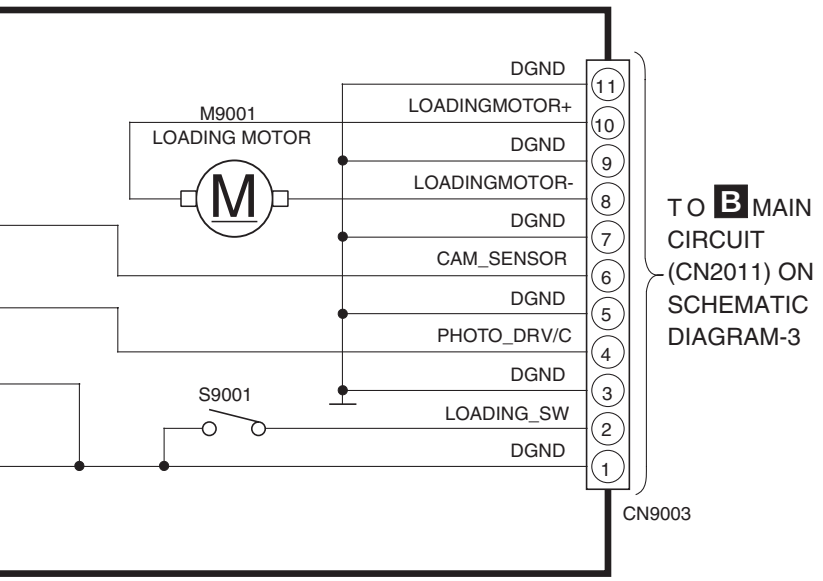


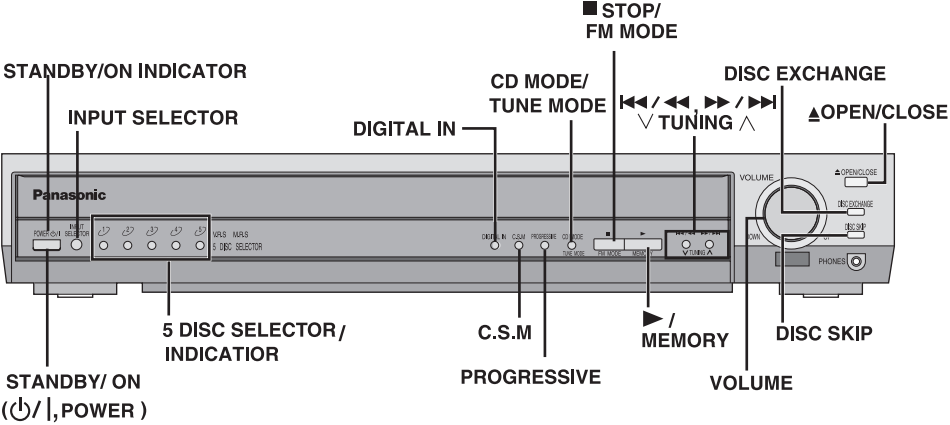


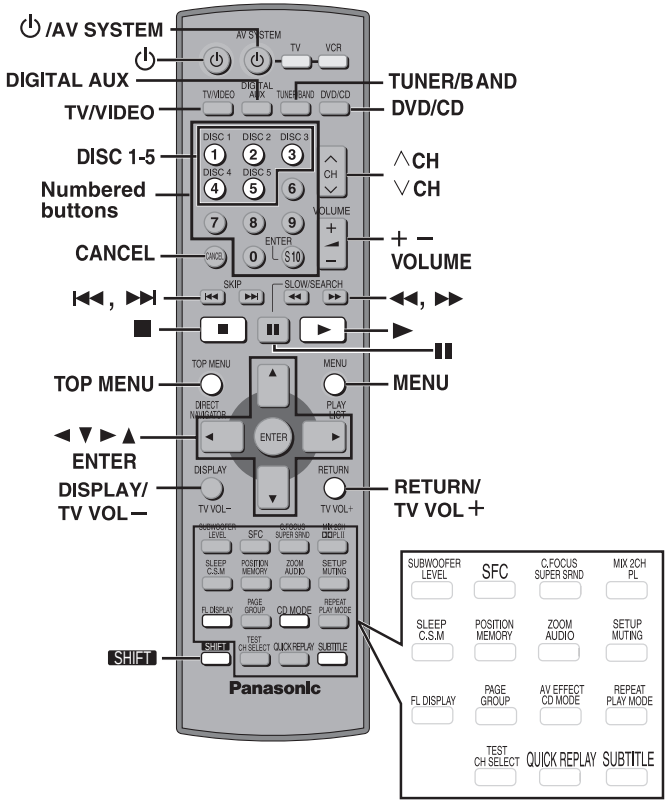



Q9103
AB0000027
INTERRUPTOR
TRAY MOTOR-
TRAY MOTOR+
DGND
PHOTO_DRV/B
DGND
DISC_SENSE
DGND
PULSE_SENSE
DGND
POSITION_SENSE
DGND
Q9103
11
10
9
8
7
6
5
4
3
2
1
TO B MAIN CIRCUIT (CN2010) ON SCHEMATIC DIAGRAM-3
CN9102

RCUIT


DGND
LOADINGMOTOR+
DGND
LOADINGMOTOR-
DGND
CAM_SENSOR
DGND
PHOTO_DRV/C
DGND
LOADING_SW
DGND
M9001
LOADING MOTOR
M
S9001
11
10
9
8
7
6
5
4
3
2
1
TO B MAIN CIRCUIT (CN2011) ON SCHEMATIC DIAGRAM-3
CN9003


■ STOP/
FM MODE
STANDBY/ON INDICATOR
INPUT SELECTOR
CD MODE/
TUNE MODE
DISC EXCHANGE
⏮ / ◀◀ , ▶▶ / ⏭
∨ TUNING ∧
▲OPEN/CLOSE
DIGITAL IN
Panasonic
VOLUME
▲OPEN/CLOSE
DISC EXCHANGE
DISC SKIP
PHONES
5 DISC SELECTOR /
INDICATION
C.S.M
▶ /
MEMORY
DISC SKIP
STANDBY/ ON
(⏻/ |, POWER)
PROGRESSIVE
VOLUME


⏻ /AV SYSTEM
DIGITAL AUX
TUNER/BAND
TV/VIDEO
DVD/CD
DISC 1-5
∧CH
∨CH
Numbered
buttons
+ −
VOLUME
CANCEL
⏮ , ⏭
◀◀, ▶▶
■
▶
❚❚
TOP MENU
MENU
◄ ▼ ► ▲
ENTER
DISPLAY/
TV VOL−
RETURN/
TV VOL +
SHIFT
Panasonic
SUBWOOFER LEVEL
SFC
C.FOCUS SUPER SRND
MIX 2CH PL
SLEEP C.S.M
POSITION MEMORY
ZOOM AUDIO
SETUP MUTING
FL DISPLAY
PAGE GROUP
AV EFFECT CD MODE
REPEAT PLAY MODE
TEST CH SELECT
QUICK REPLAY
SUBTITLE

■ Discs that can be played

Disc	Logo	Indication in these operating instructions	Remarks	
DVD-RAM	DVD RAM RAM4.7	RAM	Recorded using Version 1.1 of the Video Recording Format (a unified video recording standard).	● Recorded with DVD-Video recorders, DVD-Video cameras, personal computers, etc. ● Remove discs from their cartridges before use.
		JPEG	Recorded using the DCF (Design rule for Camera File system) standard.	● Recorded with Panasonic DVD-Video recorders. ● To play JPEG files, select “Play as Data Disc” in Other Menu (➡ page 22).
DVD-Audio	DVD AUDIO	DVD-A	—	
		DVD-V	Some DVD-Audio discs contain DVD-Video content. To play DVD-Video content, select “Play as DVD-Video” in Other Menu (➡ page 22).	
DVD-Video	DVD VIDEO DVD VIDEO	DVD-V	—	
DVD-R	DVD R R4.7		Panasonic DVD-R recorded and finalized※ on a Panasonic DVD-Video recorders or DVD-Video cameras are played as DVD-Video on this unit.	
Video CD	COMPACT disc DIGITAL VIDEO	VCD	—	
SVCD	COMPACT disc SUPER VIDEO		Conforming to IEC62107	
CD	COMPACT disc DIGITAL AUDIO COMPACT disc DIGITAL AUDIO TEXT	CD	This unit is compatible with HDCD. HDCD-encoded CDs sound better because they are encoded with 20 bits, as compared with 16 bits for all other CDs. ● During HDCD play, “HDCD” lights on the unit’s display.	
CD-R CD-RW	—	WMA MP3 JPEG CD VCD	● This unit can play CD-R/RW (audio recording disc) recorded with the formats on the left. Close the sessions or finalize※ the disc after recording. ● HighMAT discs WMA, MP3 or JPEG files only. To play without using the HighMAT function, select “Play as Data Disc” in Other Menu (➡ page 22).	

※ A process that allows play on compatible equipment.

● It may not be possible to play the above discs in all cases due to the type of disc or condition of the recording.

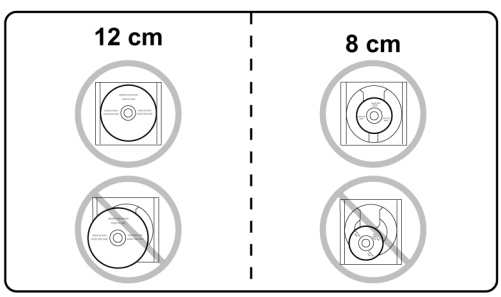
■ Discs that cannot be played

DVD-ROM, CD-ROM, CDV, CD-G, DVD+R, +RW, DVD-RW, SACD, Divx Video Discs and Photo CD, DVD-RAM that cannot be removed from their cartridge, 2.6-GB and 5.2-GB DVD-RAM and “Chaoji VCD” available on the market including CVD, DVCD and SVCD that do not conform to IEC62107.

Playing DVDs and Video CDs

The producer of these discs can control how they are played so you may not always be able to control play as described in these operating instructions (for example if the play time is not displayed or if a Video CD has menus). Read the disc’s instructions carefully.

■ Inserting a disc correctly



● Insert the disc correctly in the position as indicated in the diagrams above.
● Place only one disc on a tray.
● Insert the disc with the label side facing up.

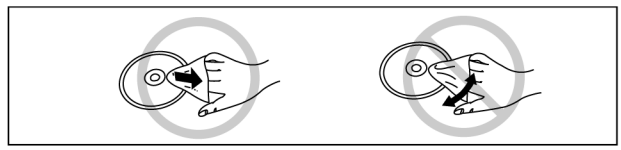
■ Playing PAL system DVD-Audio

This unit converts PAL to NTSC for play. The picture is compressed to show it in its entirety, but this may cause it to be stretched vertically.

■ To clean discs

DVD-A DVD-V VCD CD

Wipe with a damp cloth and then wipe dry.



RAM DVD-R

● Clean with an optional DVD-RAM/PD disc cleaner (LF-K200DCA1, where available).
● Never use cloths or cleaners for CDs etc.

■ Handling precautions

● Do not write on the label side with a ball-point pen or other writing instrument.
● Do not use record cleaning sprays, benzine, thinner, static electricity prevention liquids or any other solvent.
● Do not attach labels or stickers to discs. (Do not use discs with exposed adhesive from tape or left over peeled-off stickers.)
● Do not use scratch-proof protectors or covers.
● Do not use discs printed with label printers available on the market.
● Do not use irregularly shaped discs (e.g. heart-shaped), as these can damage the unit.
● Do not use discs that are badly warped or cracked.

SCHEMATIC DIAGRAM-1

A DVD MODULE(IN/OUT) CIRCUIT

: +B SIGNAL LINE : CD-DA SIGNAL LINE : MAIN SIGNAL LINE : DVD(VIDEO) SIGNAL LINE : DVD(AUDIO) SIGNAL LINE

TO SPINDLE MOTOR ASSY

FPB271: COIL_W 1, COIL_V 2, COIL_U 3, H+ 4, HU+ 5, HU- 6, HV+ 7, HV- 8, HW+ 9, HW- 10, H- 11, SW(GND) 12, SW 13, FEED- 14, FEED+ 15

IC8271 C0GBF0000004 Spindle Motor Drive

IC8251 C0GBG0000044 Tracking Coil/Focus Coil Traverse Motor Drive

MOTOR DRIVER BLOCK

TO OPTICAL PICKUP UNIT

FPB501: T+ 26, F+ 25, F- 24, T- 23, HFM 22, TA(DVD) 21, TB(DVD) 20, TD(DVD) 19, TC(DVD) 18, FE2(DVD/CD) 17, FE1(DVD/CD) 16, GND 15, RF 14, VREF2(RF-) 13, PIN(DVD) 12, LDCD 11, LDGND 10, LDDVD 9, GND(OEIC) 8, VREF1 7, VCC 6, SUB2 5, SUB1 4, PIN(CD) 3, SUBSEL 2, GND(VRCD) 1

IC8451 C0FBBK000036 8ch Audio D/A Converter

IC8111 C0CB0BD00018 Power Supply IC

IC8691 C0JBCA000066 AND GATE LOGIC IC

IC8695 C0JBCA000066 AND GATE LOGIC IC

QR8571 UNR511V00L Switch

QR8420 UNR521100L Muting Switch

Q8550 2SB1219AHL Switch

Q8560 2SD1819A0L Switch

Q8562 2SB09700RL LD Drive

Q8561 2SD1819A0L LD Drive

Q8552 2SB09700RL LD Drive

Q8551 2SD1819A0L LD Drive

DOWN SIDE(LASER CURRENT) TP8512-13, TP8522-23

PICK SIGNAL BLOCK

FPB101 → TO B MAIN CIRCUIT (CN2004)ON SCHEMATIC DIAGRAM-3: 1 VGND, 2 Y/PY/G, 3 VGND, 4 CB/PB/B, 5 VGND, 6 CR/PR/R, 7 VGND, 8 Y, 9 VGND, 10 C, 11 ADAC5V, 12 MIX-L, 13 ADAC5V, 14 MIX-R, 15 ADACGND, 16 FL, 17 ADACGND, 18 FR, 19 ADACGND, 20 SL, 21 ADACGND, 22 SR, 23 ADACGND, 24 CNT, 25 ADACGND, 26 SW, 27 A-REF, 28 ZFLAG&AMUTE, 29 DGND, 30 AUDIODIGTAL, 31 DGND, 32 D+5V, 33 DGND, 34 D+5V, 35 DGND, 36 A+5V, 37 AGND, 38 A+5V, 39 AGND, 40 D+1.2V, 41 DGND, 42 D+1.2V, 43 DGND, 44 M+9V, 45 MGND, 46 M+9V, 47 MGND, 48 OP_CPU-CLK, 49 OP_CPU-CMD, 50 OP_CPU-STAT

1 2 3 4 5 6 7 8 9 10 11 12

H G F E D C B A

OPTICAL PICKUP

1 5 10 15 20 25

FP8501

A DVD MODULE P.C.B. (SIDE:A)

PbF

VOLUME

VR6800

JK6801

F HEADPHONE P.C.B.

PbF

CN6801

10 2
1

HEADPHONE JACK

CN6901

1 22
2 21

D FL P.C.B.

PbF

M9101

FC9101

1 2 3 4 5 6

G TRAY MOTOR P.C.B.

FC9101

1 2 3 4 5 6

H SENSOR P.C.B.

CN9102

11 1

CN2009

1 21
2 22

CN2008

1 9
2 10

CN2011

11
10
1
2

CN2010

10 2
11 1

B MAIN P.C.B.

SSPINDLE MOTOR ASS'Y

15 1

FP8271

FP8101

50
45
40
35
30
25
20
15
10
5
1

A DVD MODULE P.C.B. (SIDE:B)

PbF

11

CN9003

1

F LOADING MOTOR P.C.B.

M9001

CN2004

50
1

1 3

JK600

CN600

30
1

PbF

C DPS P.C.B.

CN2003

1
30

CN2002

1
10

TUNER PACK UNIT

JK2001

AV JACK

PbF

JK2000

25 1
24 2

ACTIVE SUBWOOFER

SCHEMATIC DIAGRAM-2

A DVD MODULE(DV2) CIRCUIT

: +B SIGNAL LINE : CD-DA SIGNAL LINE : DVD(VIDEO) SIGNAL LINE : DVD(AUDIO) SIGNAL LINE

IC8051
C3ABPG000068
64M SDRAM

IC8651
RFKFMH81T160
16M Flash

IC8611
C3EBGZ000001
EEPROM IC
USE FOR DVD-RAM or DVD-AUDIO

IC8605
C0EBA0000031
RESET IC

IC8601
C0EBE0000384
Voltage Detecting IC

IC8001
MN2DS0003APH
DV2-1 LSI

TO
FLASH ROM
WRITING

FPB031
DGND 1
SDATA 2
KMODE 3
EXTRG0 4
DGND 5
SCLOCK 6
DGND 7
NRESET 8
VDD 9
VDD 10

X8621 HOJ270500064
(CX-49G 27000KHZ-F)

LB301 G1C100KA0055
(GLF2012T100K)

LB8001 JOJHC2000045
LB8002 JOJHC0000045

LB202 9uH
JOJCC0000079
(BK1608TS102-T)

LB201 G1C100K00020
(LB2016T100K)

LB401 DCG3151JA008

LB302 9uH
JOJCC0000079
(BK1608TS102-T)

SCHEMATIC DIAGRAM-3

B MAIN CIRCUIT

: +B SIGNAL LINE : MAIN SIGNAL LINE : DVD(VIDEO) SIGNAL LINE : FM/AM SIGNAL LINE

TO **A** DVD MODULE CIRCUIT (FP8101) ON SCHEMATIC DIAGRAM-1

CN2004
STATUS 1 — DVD STAT
CMD 2 — DVD CMD
DSPCLK 3 — DVD CLK
MGND 4
M+9V 5
MGND 6
M+9V 7 — M+9V
DGND 8
D+1.2V 9
DGND 10
D+1.2V 11 — D+1.2V
AGND 12
A+5V 13
AGND 14
A+5V 15 — DVD A+5V
DGND 16
D+5V 17 — DVD D+5V
DGND 18
D+5V 19 — DVD MUTE
DGND 20
AUDIO DIGITAL 21
DGND 22
ZFLAG 23
VREF 24
SUBW 25 — C2600 10V1, R2600 2.7K — SUBW
ADACGND 26 — C2500 16V10, R2500 10K — DVDCNT
CENTER 27
ADCGND 28 — C2400 50V10, R2400 10K — DVDSR
SR 29
ADACGND 30 — C2300 16V10, R2300 10K — DVDSL
SL 31
ADACGND 32 — C2256 10V1, R2256 10K — DVDFR
FR 33
ADACGND 34 — C2156 10V1, R2156 10K — DVDFL
FL 35
ADACGND 36 — C2257 50V10, R2257 1K — DVD MIXR
MIXR 37
ADAC5V 38 — C2157 50V10, R2157 1K — DVD MIXL
MIXL 39
ADACSV 40 — DVD A+5V
C 41 — S C
VGND 42
Y 43 — S Y
YGND 44
CR/PR/R 45 — CR R
VGND 46 — R
CR/PB/B 47 — CB B
VGND 48 — B
PY/Y/G 49 — PY
VGND 50 — G

R2895 10k

Q2028 B1GBCFJN0021 Muting Switch

TO **C** DSP CIRCUIT (CN600) ON SCHEMATIC DIAGRAM-7

CN2003
INPUT L 30 — SEL FL
INPUT AGND 29 — SEL FR
INPUT R 28 — C2104 470P, C2204 470P
-7.5V 27 — -7.5V
DEC A+5V 26 — DSP A+5V
DEC D+5V 25 — DSP D+5V
DGND 24
PDOWN 23 — P00
DVDRS 22
DVDLS 21
SEL F/S 20 — SEL F-S
LVL+10DB 19 — LVL+10DB
FR 18 — DSP FR
AGND 17
FL 16 — DSP FL
SUBW 15 — DEC SUBW
AGND 14
CENTER 13 — DSP C
SR 12 — DEC SR
SL 11 — DEC SL
AGND 10
M DATA 9 — DSP DAT
M LOCK 8 — LOCK
M ACK 7 — DSP ACK
M CLOCK 6 — DSP CLK
M LATCH 5 — DSP LAT
DSP RESET 4 — DSP RST
M ENABLE 3 — DSP CS
DSP STATUS 2 — P02
+7.5V 1 — +7.5V

CN2002
GND 10
M+9V 9 — T+9V
DETECT 8 — DET OUT
RCH 7 — C2200 50V1, R2200 1K — TUN R
DO/ST 6 — TUN DO
LCH 5 — C2100 50V1, R2100 1K — TUN L
SD 4 — TUN SD
DI 3 — TUN DI
CLK 2 — TUN CK
GND 1

TO TUNER PACK

C2202 0.018, C2102 0.018, C2080 0.01, R2101 47K, C2103 330P, R2201 47K, C2203 330P

TO **H** SENSOR CIRCUIT (CN9102) ON SCHEMATIC DIAGRAM-9

CN2010
TRV- 11 — TRV REV
TRV+ 10 — TRV FWD
DGND 9
PHT DRV 8 — L2003 J0JBC0000015, R2093 120, R2094 150 — C+9V
DGND 7 — L2004 J0JBC0000015
DSC SENS 6
DGND 5 — L2005 J0JBC0000015
PULSE SENS 4
DGND 3 — L2006 J0JBC0000015
POSTIN SENS 2 — DISC SENS
DGND 1 — PULSE / POSITION

IC2007 C0GAG0000007 Motor Drive(Tray)
VREF 1, OUT2 2, RNF 3, OUT1 4, VM 5, VCC 6, F-IN 7, GND 8, R-IN 9
D2005 B0ECKM000016, D2004 B0ECKM000016, R2097 4.7K, R2098 330, C2023 0.1, C2024 16V47
R2802 10K
Q2002 B1GBCFJJ00039 Motor Drive — PWM

TO **F** LOADING MOTOR CIRCUIT (CN9003) ON SCHEMATIC DIAGRAM-9

CN2011
DGND 11 — LD REV
LDNG MOTOR- 10 — LD FWD
DGND 9
LDNG MOTOR+ 8
DGND 7 — L2007 J0JBC0000015
CAM SENS 6
DGND 5 — L2008 J0JBC0000015, R2095 330, R2096 330
PHT DRV 4
DGND 3 — L2009 J0JBC0000015
OPEN SW 2 — LOAD
DGND 1 — OPEN SW

IC2008 C0GAG0000007 Motor Drive(Loading)
VREF 1, OUT2 2, RNF 3, OUT1 4, VM 5, VCC 6, F-IN 7, GND 8, R-IN 9
D2007 B0ECKM000016, D2006 B0ECKM000016, R2099 4.7K, R2800 330
R2801 10K
Q2001 B1GBCFJJ00039 Motor Drive

OUT L
OUT R
R2976 0, C2107 50V3.3 — LOUT1
R2979 0 — LOUT2
C2207 50V3.3

LINE R — C2206 50V4.7 — R2207 100K — R2206 1K — LINEOUT R
R2107 100K — R2106 1K — LINEOUT L
LINE L — C2106 50V4.7

R2208 2.7K
R2108 2.7K — C2099 50V4.7
R2873 27K — R2874 56K

Q2100 B1GFGCAA0001 Muting Switch

Q2026 B1GDCFGA0014 Muting Control

R2872 1K

-7.5V
MUTE L

IC2019 C3EBDG000052 EEPROM IC
R2090 4.7K — C2019 50V330
VREF+
EECS
EECLK
C2020 50V330P, R2092 22K, C2021 50V330P, R2091 22K, C2022 0.022
EEDA

SCHEMATIC DIAGRAM-4

B MAIN CIRCUIT

——— : +B SIGNAL LINE - - - - - : -B SIGNAL LINE ⇨ : MAIN SIGNAL LINE ⇨ : FM/AM SIGNAL LINE

IC2011
C1BB00000845
ASP IC

IC2010
C0AABBB000118
Buffer Amp

IC2015
C0ABBB000118
Buffer Amp

IC2013
C0AABB000125
Headphone Amp

IC2012
C0ABCB000052
Buffer Amp

Q2500 B1GDCFGA0014 Muting Control
Q2027 B1GDCFGA0014 Muting Control
Q2104 B1GFGCAA0001 Muting Switch
Q2200 B1GFGCAA0001 Muting Switch
Q2101 B1GFGCAA0001 Muting Switch
Q2601 B1GFGCAA0001 Muting Switch
Q2102 B1GFGCAA0001 Muting Switch

D2035 B0ACKC000005
D2036 B0ACKC000005
D2102 B0ACCK000005

TV L
TV R
VCR L
VCR R
AUX L
AUX R
TUN L
TUN R
DVD MIXL
DVD MIXR
DVDCNT
DVDSL
DVDSR
SUBW
SEL FL
SEL FR
DVDFL
DVDFR

LOUT2 LOUT1 TMFR TMFL FNFRA BNFRB BNFLA BNFLB GOUTFL VINFL GOUTFR VINFR THGND CL DA VCC VEE FOUT4
FW4 OUTFL FOUT3 FW3 OUTFR MIX IN AGCR AGCC GAOUT FW2 FPIT2 FW1 FOUT1 OUTC OUTCN OUTLS OUTLSN OUTRS OUTRSN OUTSUB
AOUT1 AOUT2 ????? INFLB INFRB INCB INLSB INRSB INSUBB GOUTC VDDC GOUTLS VRLS GOUTRS VRRS GOUTSUB VNSUB OUTSUBN

VOL CK VOL DA +7.5V -7.5V FRONTL FRONTR CENTER SUBWOOFER MUTE C

DSP FL DSP FR DSP C DEC SL DEC SR DEC SUBW

HP R HP L

555 MIX

SCHEMATIC DIAGRAM-5

B MAIN CIRCUIT

——— : +B SIGNAL LINE　– – – – : -B SIGNAL LINE　25k : DVD(VIDEO) SIGNAL LINE

IC2018
C2CBJG000404
System Control

IC2006
C9ZB00000431
Video Selector IC

Q2600 B1GDCFGA0014 Muting Control
Q2103 B1GDCFGA0014 Muting Control
Q2105 B1GDCFGA0014 Muting Control
Q2201 B1GDCFGA0014 Muting Control
Q2602 B1GDCFJJ0023
Q2029 B1GBCFJN0021 LED Drive
Q2004 B1GBCFJN0021 Switch
Q2000 B1GBCFLL0028 Reset Switch

X2000 HZB100500004 10MHz

AV JACK
JK2001
K2YZ12000010

SCHEMATIC DIAGRAM-6

B MAIN CIRCUIT

: +B SIGNAL LINE : -B SIGNAL LINE : MAIN SIGNAL LINE

IC2004 C0CBADG00023 Regulator
IC2000 C0CBADG00023 Regulator
IC2002 C0DBAZG00033 DC-DC Converter
IC2001 C0DBAZG00033 DC-DC Converter
IC2005 C0DBEFG00003 Regulator
IC2003 C0CBCDG00003 Regulator
Q2011 B1ADCF000001 Power Supply
Q2013 B1ABCF000131 Regulator
Q2012 B1BCCG0000021 Regulator
Q2014 B1GDCFGA0014 Stabilizer
Q2017 B1BCCD000016 Regulator
Q2015 KTA12710YTA Regulator
Q2016 B1ADCF000001 Regulator
Q2021 B1AAKD000009 Regulator
Q2022 2SD21370PA Regulator
Q2023 2SD21370PA Regulator
Q2019 B1ABCF000131 Regulator
Q2018 B1BCCG000021 Regulator
Q2020 B1GDCFGA0014 Stabilizer
Q2024 B1GDCFJ00023 Switch
Q2025 B1GBCFJA0015 DC Detect Switch
Q2031 B1GBCFJJ0039 Switch

DVD D+5V
DVD A+5V
M+9V
DVD AC
D+12V
-7.5V
+7.5V
-VP
C+9V
OPT PCONT
DSP D+5V
DSP A+5V
+12V
SW5V
SUB B
T+9V
DCDET
DVD AC

DC DET
SYS6V
MUTE H
FRONTR
SUB+B
FRONTL
RSURR
LSURR
CENTER
SUBWOOFER
PCONT
FREQ HOP
SYNC
FL1
FL2

CK2000
1 DVDAC2
2 DCDET
3 DVDAC1
4 SYS6V
5 MUTE H
6 DGND
7 FRONTR
8 SUB+B
9 OUTPUT GND
10 OUTPUT GND
11 FRONTL
12 SURRR
13 GUARD GND
14 SURRL
15 CENTER
16 GUARD GND
17 SUBWOOFER
18 GUARD GND
19 PCONT
20 FREQ HOP
21 SYNC
22 FL1
23 SUBAC1
24 FL2
25 SUBAC2
26 CASE GND

TO ACTIVE SUBWOOFER UNIT SB-WA920PP-S

CN2008
1 KEY2
2 JOG B
3 JOG A
4 BLUE LED
5 VREF+
6 GND1
7 RMT
8 HP L
9 HPGND
10 HP R

TO F HEADPHONE CIRCUIT (CN6801)ON SCHEMATIC DIAGRAM-8

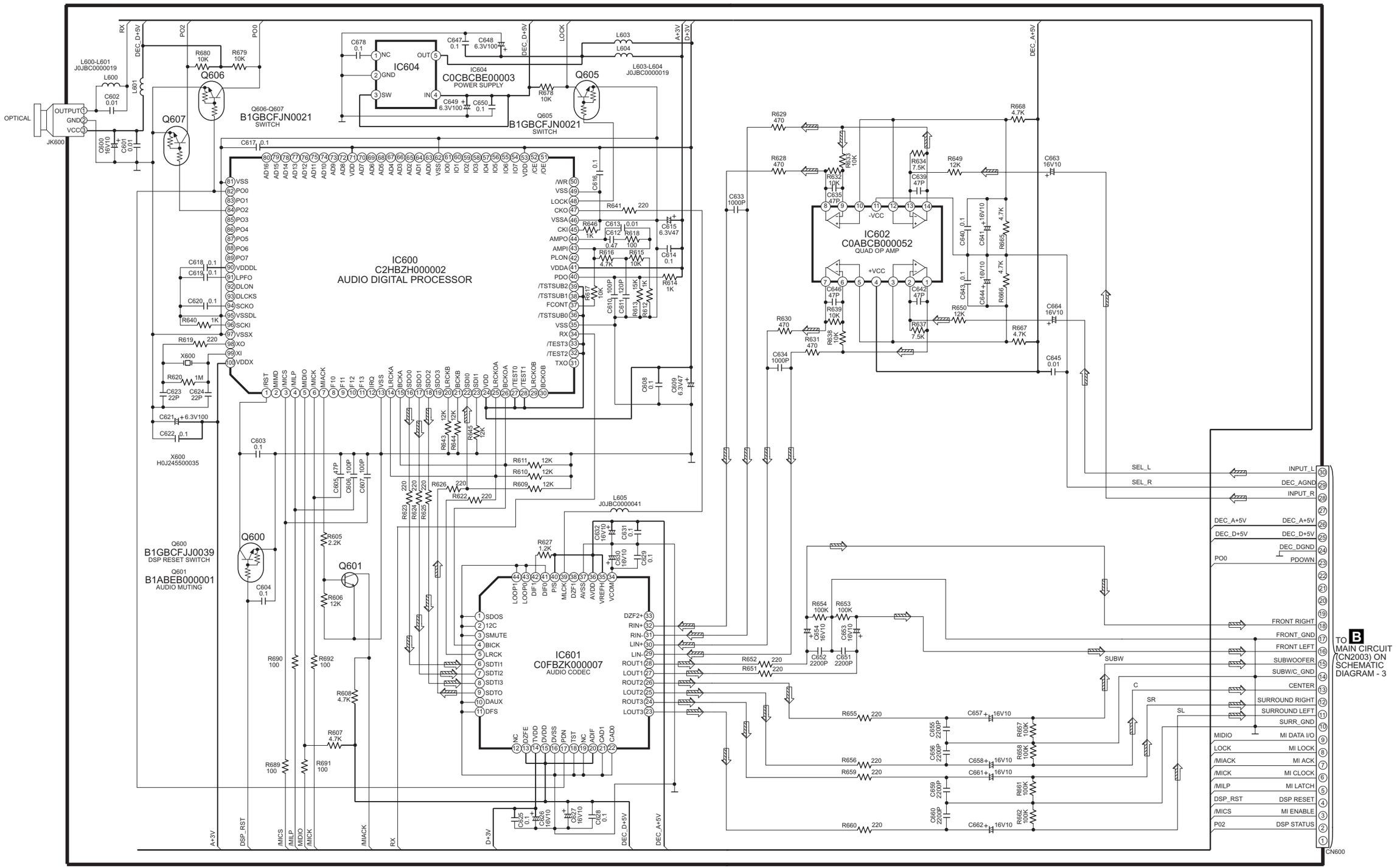
CN2009
24 (SPE A)
23 (SPE B)
20 C+9V
19 (SPE C)
18 (SPE IN)
17 DISC5
16 DISC4
15 DISC3
14 DISC2
13 DISC1
12 STBY LED
11 KEY 1
10 GND1
9 -VP
8 FLD RST
7 FLGND
6 FLD CS
5 FLD CK
4 FLD DA
3 FL1
2 SW5V
1 FL2

TO D FL CIRCUIT (CN6901)ON SCHEMATIC DIAGRAM-8

CHEMATIC DIAGRAM - 7

—— : +B SIGNAL LINE – – : -B SIGNAL LINE ⇨ : MAIN SIGNAL LINE

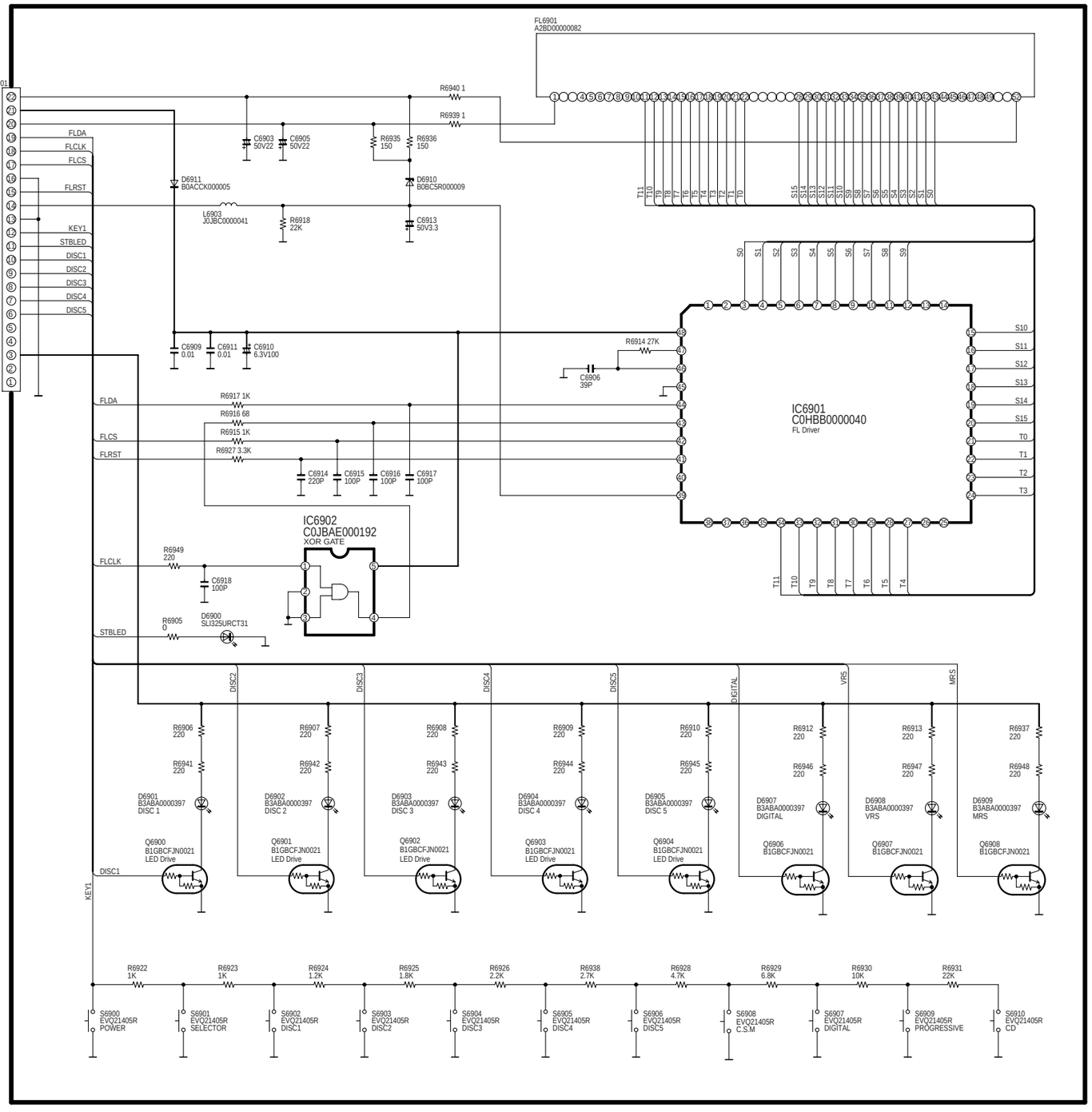
C DSP CIRCUIT



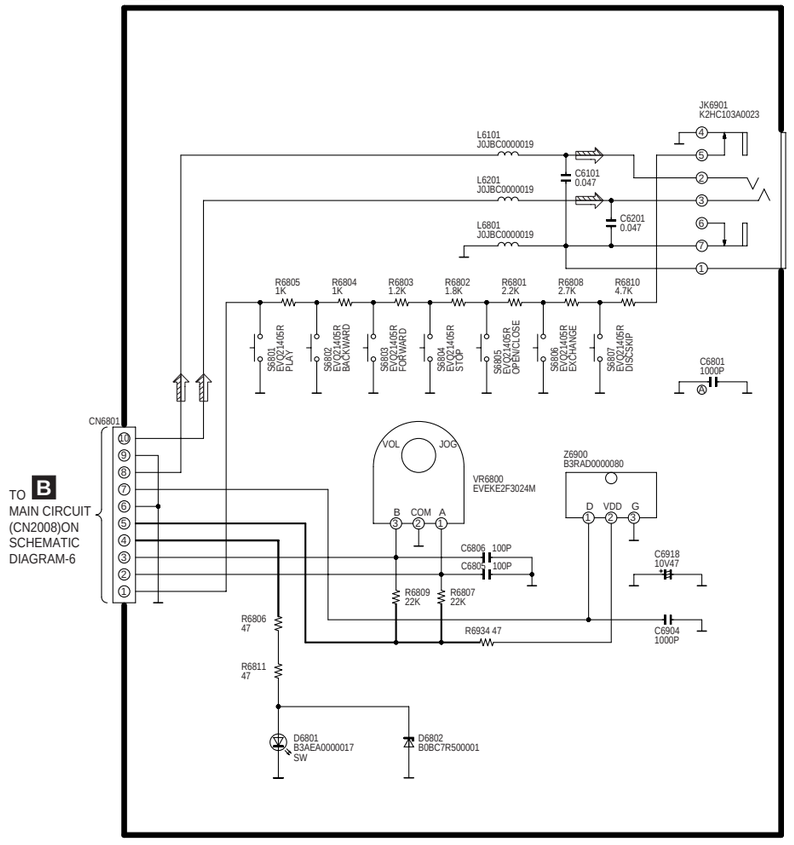
SCHEMATIC DIAGRAM-8

D FL CIRCUIT

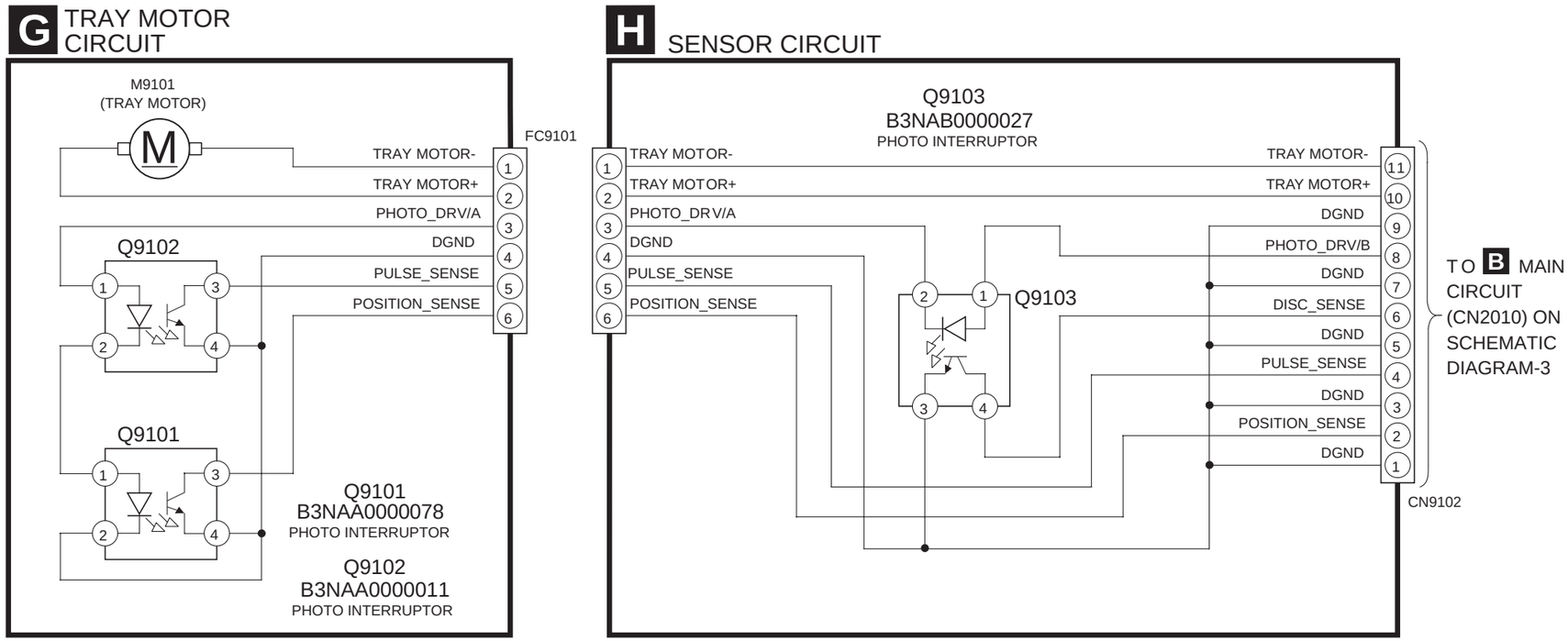
: +B SIGNAL LINE : MAIN SIGNAL LINE

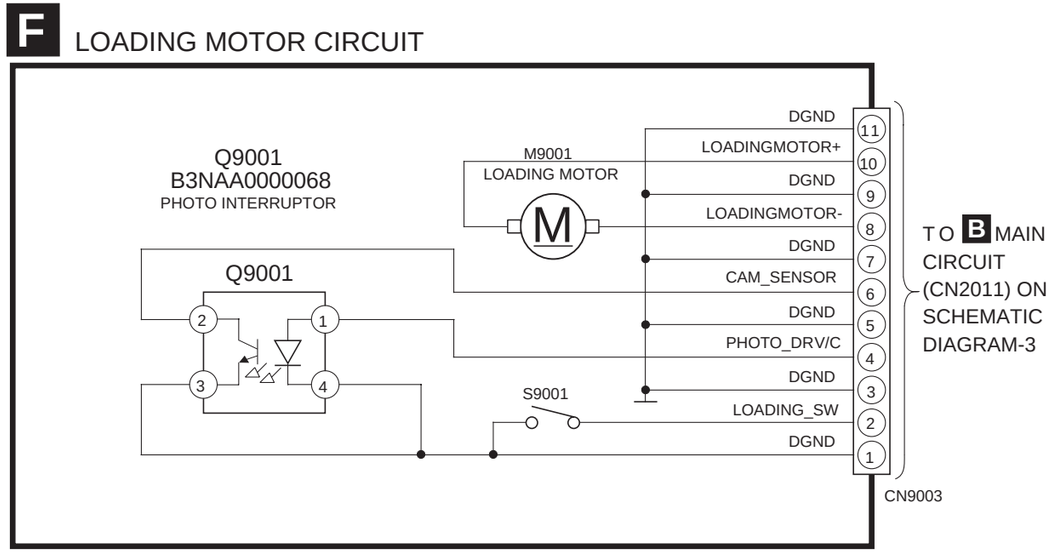


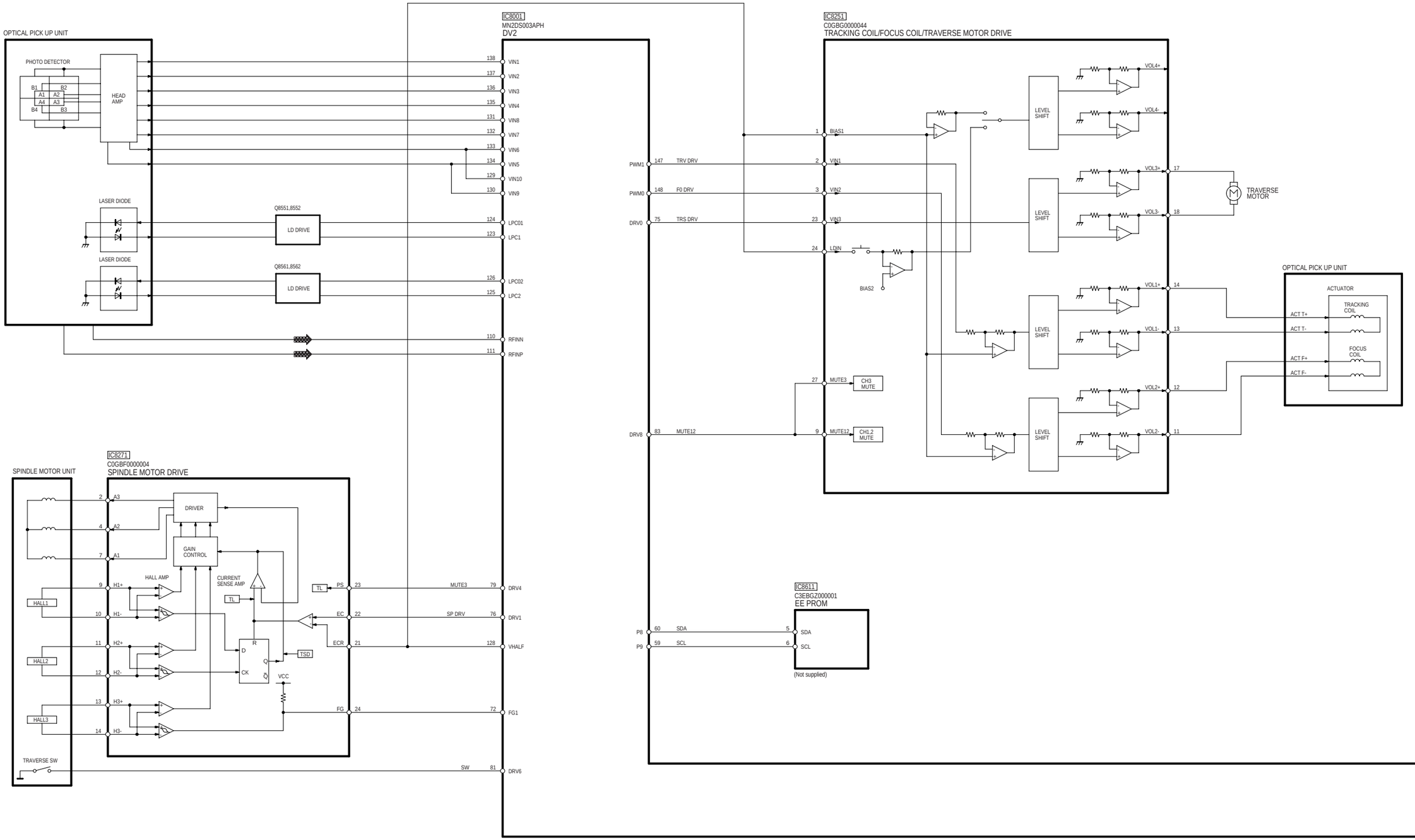
E HEADPHONE CIRCUIT

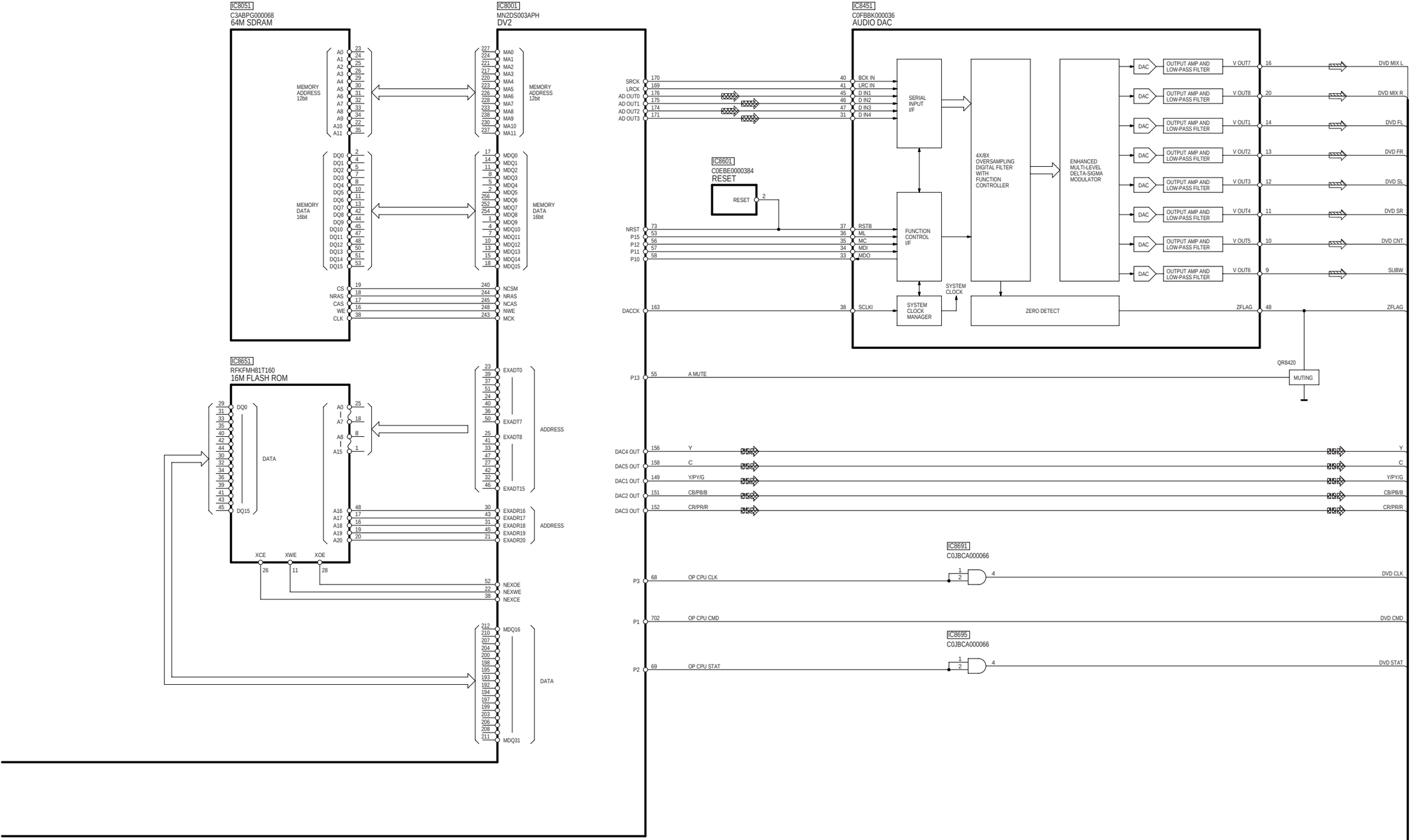


SCHEMATIC DIAGRAM-9






OPTICAL PICK UP UNIT
PHOTO DETECTOR
B1
B2
A1
A2
A4
A3
B4
B3
HEAD AMP
LASER DIODE
LASER DIODE
Q8551,8552
LD DRIVE
Q8561,8562
LD DRIVE
IC8001
MN2DS003APH
DV2
138 VIN1
137 VIN2
136 VIN3
135 VIN4
131 VIN8
132 VIN7
133 VIN6
134 VIN5
129 VIN10
130 VIN9
124 LPC01
123 LPC1
126 LPC02
125 LPC2
110 RFINN
111 RFINP
IC8251
C0GBG0000044
TRACKING COIL/FOCUS COIL/TRAVERSE MOTOR DRIVE
PWM1 147 TRV DRV
PWM0 148 F0 DRV
DRV0 75 TRS DRV
DRV8 83 MUTE12
1 BIAS1
2 VIN1
3 VIN2
23 VIN3
24 LDIN
BIAS2
27 MUTE3
CH3 MUTE
9 MUTE12
CH1,2 MUTE
LEVEL SHIFT
LEVEL SHIFT
LEVEL SHIFT
LEVEL SHIFT
VOL4+
VOL4-
VOL3+
VOL3-
VOL1+
VOL1-
VOL2+
VOL2-
17
18
14
13
12
11
TRAVERSE MOTOR
OPTICAL PICK UP UNIT
ACTUATOR
TRACKING COIL
FOCUS COIL
ACT T+
ACT T-
ACT F+
ACT F-
SPINDLE MOTOR UNIT
IC8271
C0GBF0000004
SPINDLE MOTOR DRIVE
2 A3
4 A2
7 A1
DRIVER
GAIN CONTROL
HALL AMP
CURRENT SENSE AMP
9 H1+
10 H1-
11 H2+
12 H2-
13 H3+
14 H3-
HALL1
HALL2
HALL3
TL
TL
TSD
R
D
Q
CK
VCC
PS 23
EC 22
ECR 21
FG 24
MUTE3 79 DRV4
SP DRV 76 DRV1
128 VHALF
72 FG1
TRAVERSE SW
SW 81 DRV6
IC8611
C3EBGZ000001
EE PROM
(Not supplied)
P8 60 SDA
P9 59 SCL
5 SDA
6 SCL


IC8051
C3ABPG000068
64M SDRAM
MEMORY ADDRESS 12bit
MEMORY DATA 16bit
CS
NRAS
CAS
WE
CLK
IC8001
MN2DS003APH
DV2
MEMORY ADDRESS 12bit
MEMORY DATA 16bit
NCSM
NRAS
NCAS
NWE
MCK
IC8651
RFKFMH81T160
16M FLASH ROM
DATA
ADDRESS
XCE
XWE
XOE
NEXOE
NEXWE
NEXCE
EXADT0
EXADT7
EXADT8
EXADT15
EXADR16
EXADR17
EXADR18
EXADR19
EXADR20
MDQ16
MDQ31
IC8451
C0FBBK000036
AUDIO DAC
SRCK
LRCK
AD OUT0
AD OUT1
AD OUT2
AD OUT3
BCK IN
LRC IN
D IN1
D IN2
D IN3
D IN4
SERIAL INPUT I/F
IC8601
C0EBE0000384
RESET
NRST
P15
P12
P11
P10
RSTB
ML
MC
MDI
MDO
FUNCTION CONTROL I/F
4X/8X OVERSAMPLING DIGITAL FILTER WITH FUNCTION CONTROLLER
ENHANCED MULTI-LEVEL DELTA-SIGMA MODULATOR
DACK
SCLKI
SYSTEM CLOCK MANAGER
SYSTEM CLOCK
ZERO DETECT
ZFLAG
DAC
OUTPUT AMP AND LOW-PASS FILTER
V OUT7
V OUT8
V OUT1
V OUT2
V OUT3
V OUT4
V OUT5
V OUT6
DVD MIX L
DVD MIX R
DVD FL
DVD FR
DVD SL
DVD SR
DVD CNT
SUBW
P13
A MUTE
QR8420
MUTING
DAC4 OUT
DAC5 OUT
DAC1 OUT
DAC2 OUT
DAC3 OUT
Y
C
Y/PY/G
CB/PB/B
CR/PR/R
IC8691
C0JBCA000066
P3
OP CPU CLK
DVD CLK
P1
OP CPU CMD
DVD CMD
IC8695
C0JBCA000066
P2
OP CPU STAT
DVD STAT

TUNER PACK

FM ANT

AM ANT

MIXER

RF AMP

OSC

BUFFER

FM IF AMP

AM ANT COIL

AM OSC COIL

+B

+B (FM)

Rch

TUN L

FM/AM IF AMP, DET/AM OSC MIX /FM MPX (LA1833NMNTLM)

ALC

AM OSC

BUFFER

AM MIX

AM RM AMP

DET OUT

DECODER

AGC

PHASE DET

PILOT CANCEL

LEVEL DET

S-CURVE

STEREO SWITCH

FM IF

AM/FM IF BUFFER

AM IF

AM DET

FM DET

COMP

VCO

TUNING DRIVE

FF

FF

FF

PILOT DET

REG

REG

REG

SD

ST

AM IFT

PLL FREQUENCY SYNTHESIZER (LC7213MDTRM)

PHASE DETECTOR CHARGE PUMP

REFERENCE DIVIDER

X103

UNLOCK DETECTOR

SWALLOW COUNTER 1/6,1/17,4 BITS

1/2

12 BITS PROGRAMMABLE DIVIDER

UNIVERSAL COUNTER

SHIFT REGISTER LATCH

C2B I/F

DO

CE

DI

CL

ST/DO

POWER ON RESET

POWER SUPPLY (FM:ON)

(FM)

IC2006
C9ZB00000431
VIDEO DRIVE

Y/PY/G

CB/PB/B

CR/PR/R

Y

C

BIAS 150K

CY IN

CB IN

CR IN

Y IN

C IN

4dB

13.5MHz LPF

2dB

75Ω

CY OUT

CB OUT

CR OUT

Y OUT

C OUT

CY SAG

CB SAG

CR SAG

Y SAG

JK2001 Y(RED)

JK2001 CB(GREEN)

JK2001 CR(BLUE)

JK2001 VIDEO OUT

JK2001 S-VIDEO OUT

VCC1

VCC2

GND

GND2

Q2004

SWITCHING

IC2007
C0GAG0000007
MOTOR DRIVE(TRAY)

TRAY MOTOR

DRIVE

CONTROL

VCC

GND

Q2002

MOTOR DRIVE

Q2001

IC2008
C0GAG00000XX
MOTOR DRIVE(LOADING)

LOADING MOTOR

Q9103 PHOTO INTERRUPTOR

Q9102 PHOTO INTERRUPTOR

Q9101 PHOTO INTERRUPTOR

Q9001 PHOTO INTERRUPTOR

S9001

Q2028

MUTING

ZFLAG

LOAD

DVD MUTE

DISC SENSE

PULSE

POSITION

OPEN SW

OP/CL REV

OP/CL FWD

PWM

TRV REV

TRV FWD

WIDE1

DVD CLK

DVD CMD

DVD STAT

ST/DO

DI

SD

CE

CL

TUN DO

TUN DI

TUN SD

TUN CE

TUN CLK

IC2018
C2CBHG000137
SYSTEM CONTROL

IC2011
C1BB00000845
APS(INPUT SELECT/DIGITAL SOUND PROCESSOR/ELECTRONIC VOLUME/TONE)

JK2001 LINE OUT
JK2001 TV
JK2001 VCR
JK2001 AUX
TUNER L(R)
DVD MIX L(R)
DVD FL(FR)
DVD SL(SR)
DVD CNT
SUBW

(60)59 (L OUT2) L OUT1
(62)61 (IN A2) IN A1
(64)63 (IN B2) IN B1
(66)65 (IN C2) IN C1
(68)67 (IN D2) IN D1
(70)69 (IN E2) IN E1
+B 42 VEE
+B 43 VCC
(76)75
(70)69 (IN RSA) IN LSA
77 IN CA
80 IN SUBA

TMF L (TMFR)
TMF RB (TMF RA)
TMF LB (TMF LA)
TONE
AMP
NF
DIGITAL SOUND PROCESSOR

IC2010
C0ABBB000118
BUFFER AMP
(2)6
(3)5
7(1)
4
8
-B
+B

AMP
AMP
AMP
G OUT RS) G OUT LS
G OUT C
G OUT SUB
(15) 13
11
17
(16) 14
12
18
(VIN RS) VIN LS
VIN C
VIN SUB

Q2026 MUTING CONTROL
Q2100 MUTING
LOGIC
DA 45
CL 46
(A OUT2) A OUT1 (2)1
IN C0 6
(IN FRB) IN FLB (5)4
IN SUBB 9
(IN RSO) IN LS0 (8)7

IC2013
C0AABB000125
HEADPHONES AMP
(6)2
(5)3
1(7)
4
8
-B
+B
Q2102
MUTING
Q2201
MUTING CONTROL

Q2200 MUTING
Q2105 MUTING CONTROL

(OUT FR) OUT FL 39(36)
(OUT RS) OUT LS 25(23)
(OUT RST) OUT LSW 24(22)
(F OUT3) F OUT4 41(38)
(FM3) FM4 40(39)
OUT C 27
OUT CW 26
F OUT1 28
FM1 29
(G OUT FR) G OUT FL 52(50)
(VM FR) VM FL 51(49)

Q2104 MUTING
Q2103 MUTING CONTROL
Q2601 MUTING
Q2500 MUTING CONTROL
Q2601 MUTING
Q2600 MUTING CONTROL

IC2015
C0ABBB000118
BUFFER AMP
(CENTER/SUB WOOFER)
6
5
7
3
2
1
4
8
-B
+B
NF

IC602
C0ABCB000052
QUAD OP AMP
3(12)
2(13)
5(10)
6(9)
1(14)
7(8)

JK600 OPTICAL
+B
X600
34 RX
99 XI
98 XO

IC600
C2HBZH000002
AUDIO DIGITAL PROCESSOR
CKO 47
LRCKA 14
LRCKOA 25
BCKA 15
BCKOA 26
SDIO 22
SDO2 18
SDO1 17
SDO0 16
RST 1
MICS 3
MILP 4
MIDIO 5
MICK 6
MIACK 7
LOCK 48
PO2 84
PO0 82

IC601
C0FBZK000007
AUDIO CODEC
MLCK 39
LRCK 5
BICK 4
SDTO 9
SDTI3 8
SDTI2 7
SDTI1 6
PDN 17
30 (32) LIN-(R)
29 (31) LIN-(R)
25 LOUT2
26 ROUT2
23 (24) LOUT3(R)
27 (28) LOUT1(R)

Q600 DSP RESET SWITCH
Q601 AUDIO MUTING
Q605 SWITCH
Q607 SWITCH
Q606 SWITCH

VR6800 (VOLUME)
+B
Z6900 (REMOTE SENSOR)
+B

D2001
+B
Q6900 LED DRIVE
Q6901 LED DRIVE
Q6902 LED DRIVE
Q6903 LED DRIVE
Q6904 LED DRIVE
D6901
D6902
D6903
D6904
D6905

Q2000, Q2003 RESET
+B
X2000

47 MUTE L
75 JOG B
76 JOG A
16 VCC
62 VCC
99 AVCC
18 RMT
48 VOL DATA
49 VOL CK
52 DSP_RST
51 DSP_CS
53 DSP_LAT
57 DSP_DAT
54 DSP_CK
55 DSP2_ACK
56 LOCK
50 PO2
60 PO0
98 VREF
86 DISC1 LED
85 DISC2 LED
84 DISC3 LED
83 DISC4 LED
82 DISC5 LED
42 MUTE SUB
40 MUTE C
34 MUTE S
39 MUTE FRONT
43 HP MUTE
13 X OUT
15 X IN
12 RESET

IC2018
C2CBHG000137
SYSTEM CONTROL

SIGNAL LINES

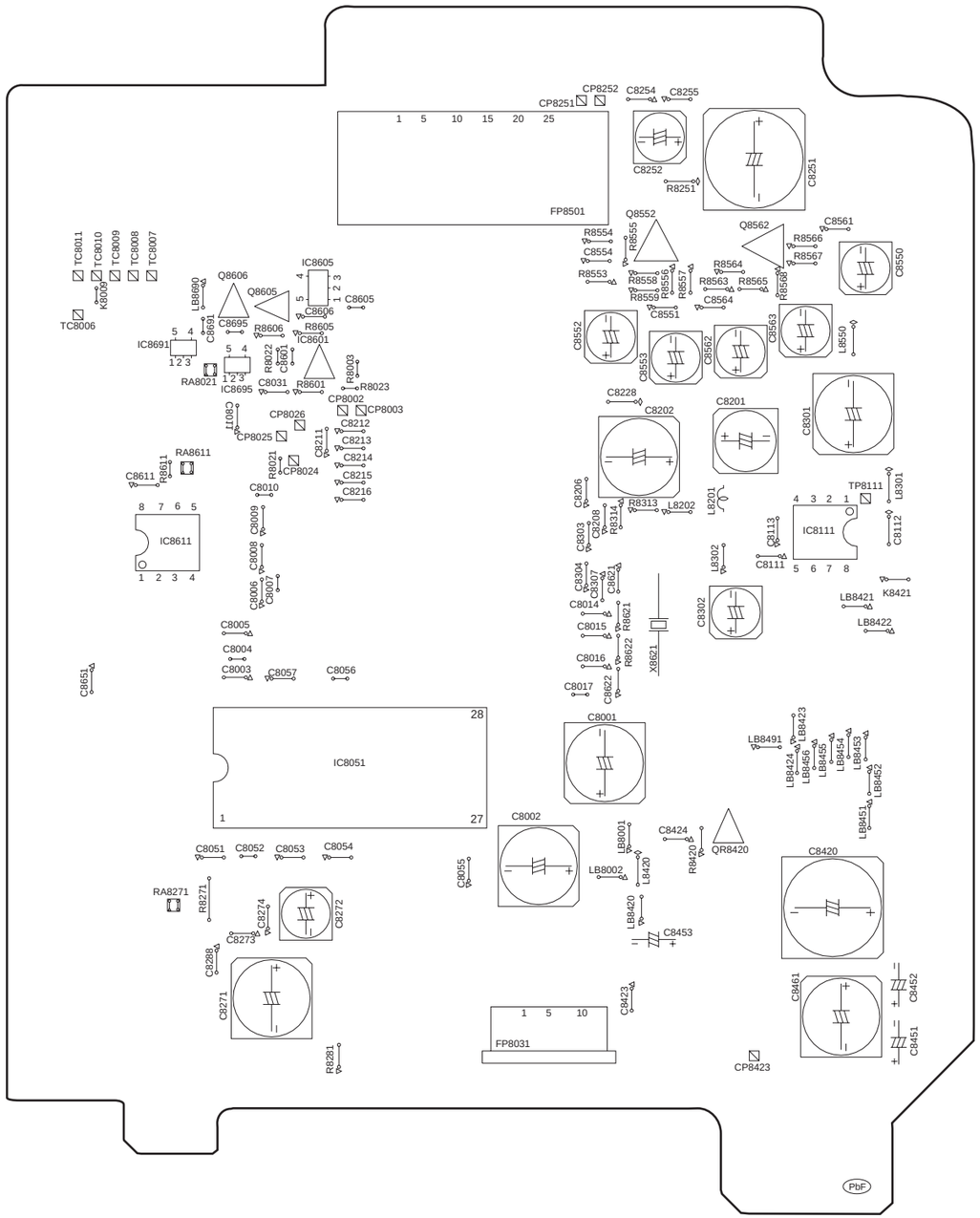
: MAIN SIGNAL LINE
: FM SIGNAL LINE
: FM OSC SIGNAL LINE
: AM SIGNAL LINE
: AM OSC SIGNAL LINE
: FM /AM SIGNAL LINE
: DVD AUDIO SIGNAL LINE
: DVD VIDEO SIGNAL LINE
: CD-DA (AUDIO /VIDEO) SIGNAL LINE

( ) Indicates the Pin No. of Right Channel.

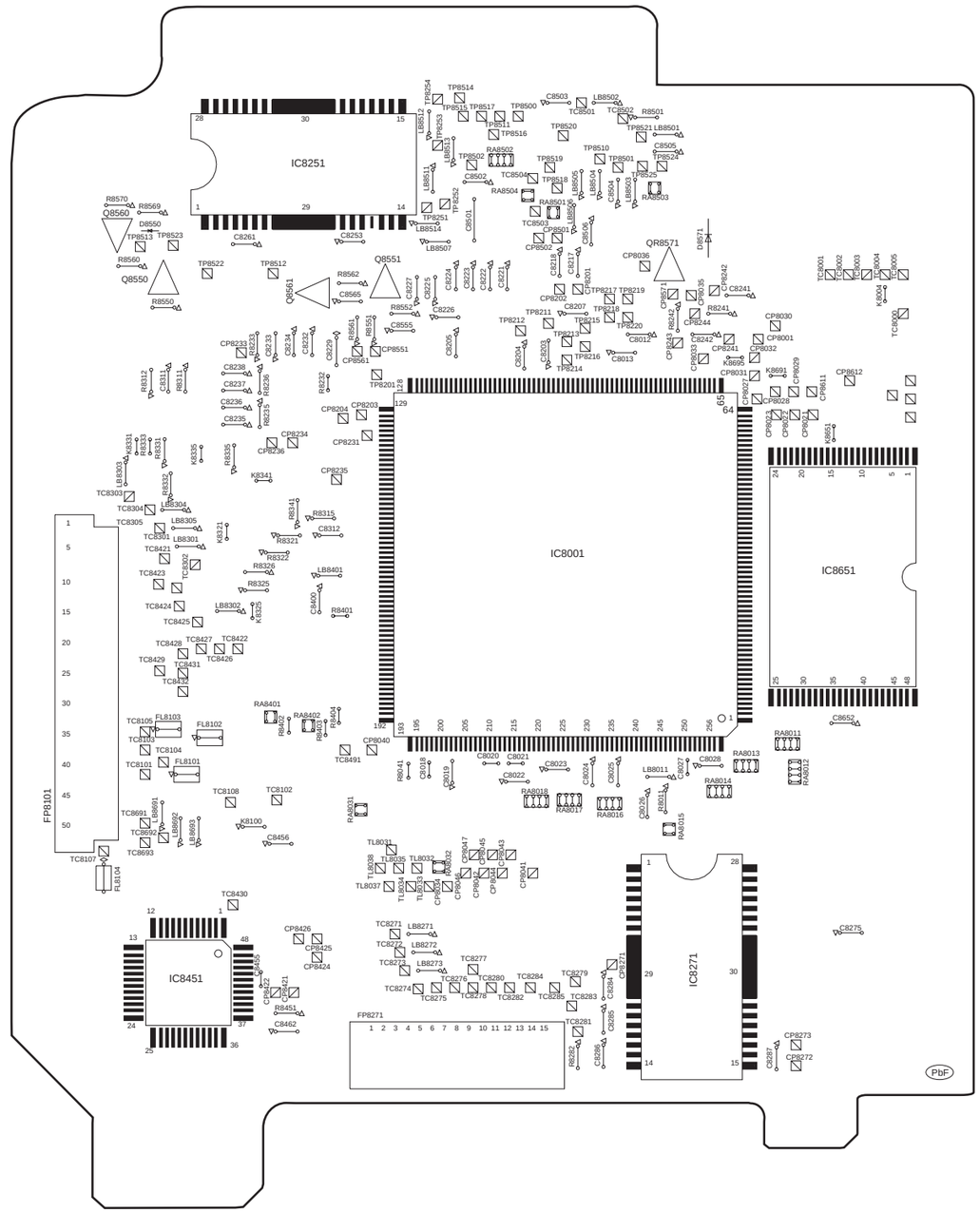
NOTE : Signal Lines are applicable to the Left Channel only.

Rch
PHONES
JK2000
SUB +B
DVD AC2
SUB AC2
DVD AC1
SUB AC1
SYS 6V
D.GND
SURR Rch
GND
SURR Lch
FRONT Rch
FRONT Lch
OUTPUT GND
OUTPUT GND
CENTER
GND
SUB WOOFER
GND
CASE GND
FL1
FL2
P CONT
MUTE H
SYNC
DC DET
TO ACTIVE SUB WOOFER
IC2000 C0CBADG00023 REGULATOR
IC2003 C0CBCDG00003 REGULATOR
IC2004 C0CBADG00023 REGULATOR
IC2002 C0DBAZG00033 DC-DC CONVERTER
IC2005 C0DBEFG00003 REGULATOR
IC2001 C0DBAZG00033 DC-DC CONVERTER
Q2024 SWITCH
Q2011 POWER SUPPLY
D2031
Q2018-2020, D2021,2022 REGULATOR/ STABILIZER
D2027
Q2021,D2025 REGULATOR
Q2012-2014, D2012,2013 REGULATOR/ STABILIZER
D2023
Q2022,D2026 REGULATOR
Q2023,D2029 REGULATOR
D2024,2034
Q2015,D2014 REGULATOR
D2015-2020
Q2016,2017 REGULATOR/ STABILIZER
D2032
D2039
D2033
Q2025 DC IN DET.
FL6901
FL DISPLAY
T11 T0 S15 S0
11-22
28-43
21-24,27-34
3-12,15-20
T0 T11 S0 S15
47 X OUT
46 X IN
IC6901 C0HBB0000040 DISPLAY DRIVER
FL DA FL CLK FL CS FL RST VCC GND -VP
44 43 42 41 48 45 39
90 89 88 87
FLD DA FLD CLK FLD CS FLD RST
Q2029 LED DRIVE
D6900
KEY SWITCH (S6900-6907, S6909,6910)
KEY SWITCH (S6801-6807)
70 97 91 71 19 72 67 68
P CONT KEY1 KEY2 MUTE H SYNC DC DET DPT PCONT DVD P CONT
IC2018 C2CBHG000137 SYSTEM CONTROL
VSS VSS AVSS
14 64 96

A DVD MODULE P.C.B. (REP3654G) (SIDE:A)



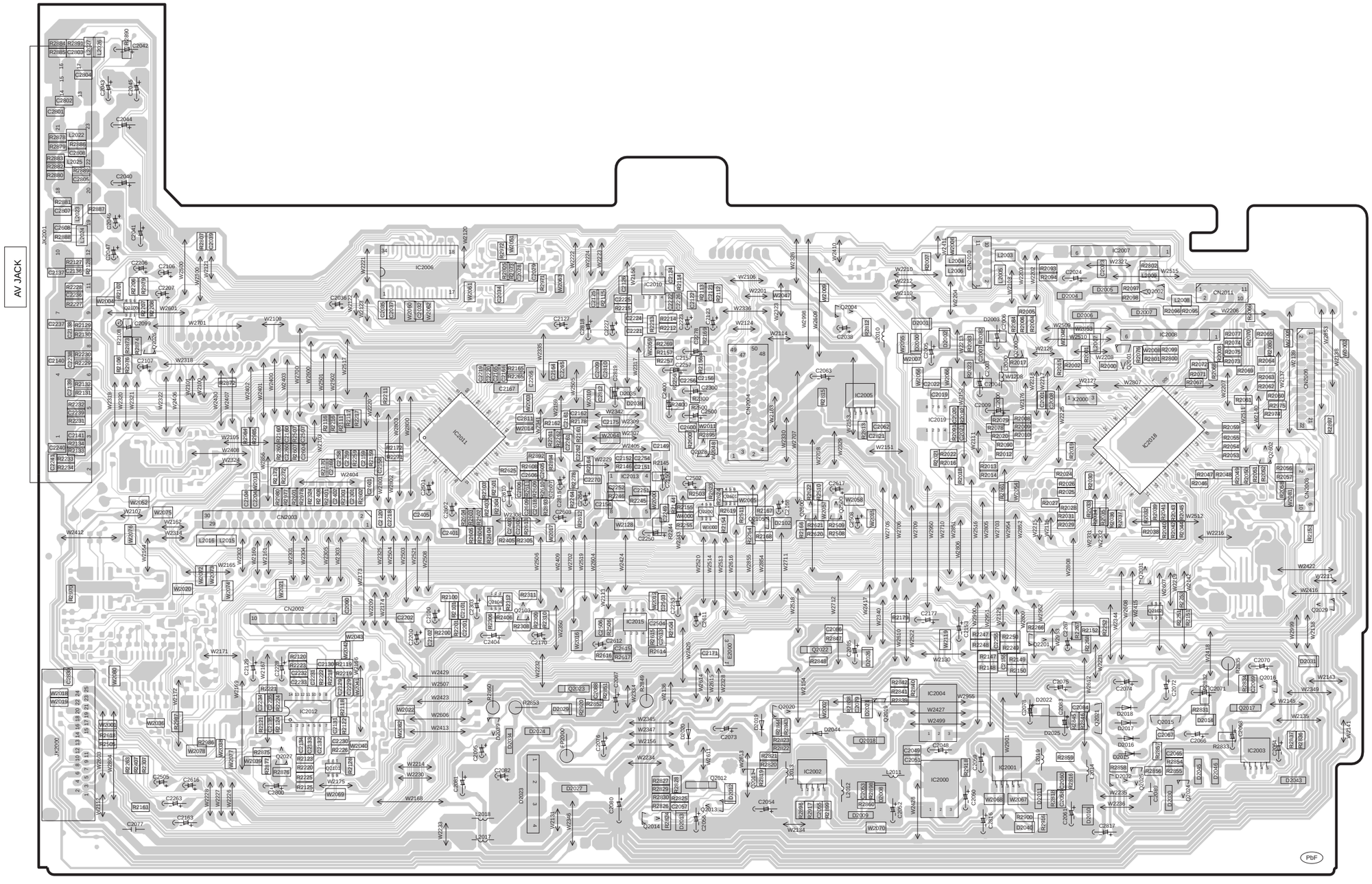
A DVD MODULE P.C.B. (REP3654G) (SIDE:B)



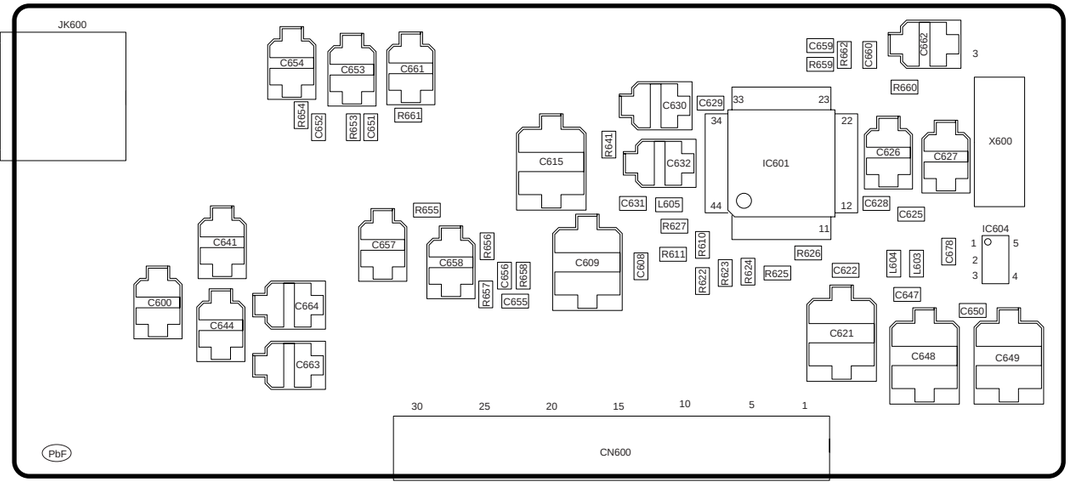
A B C D E F G H I J K L M N

1 2 3 4 5 6 7 8 9

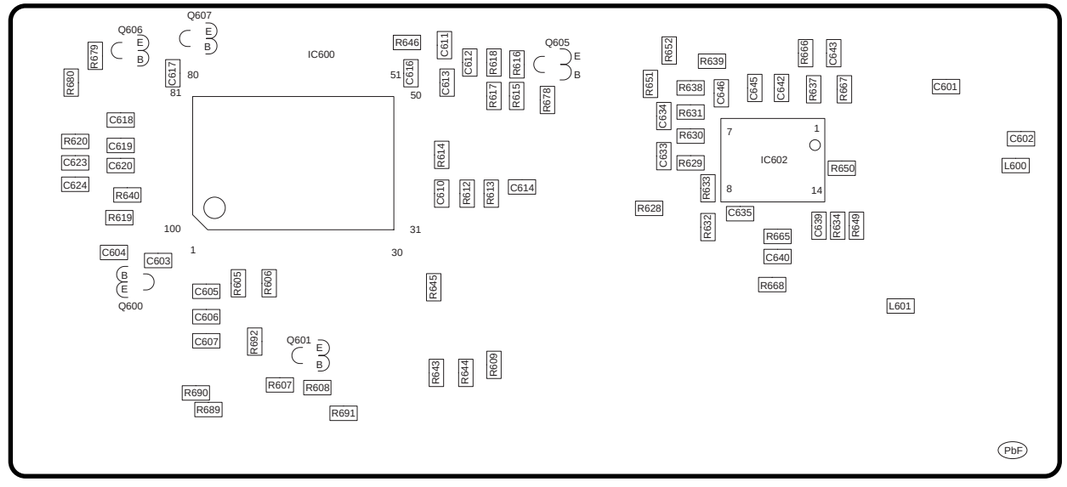
B MAIN P.C.B. (REPX0420A)



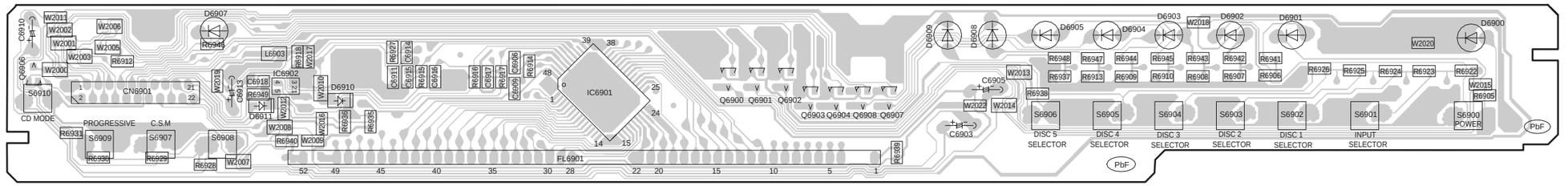
C DSP P.C.B. (REPX0335B) (SIDE:A)



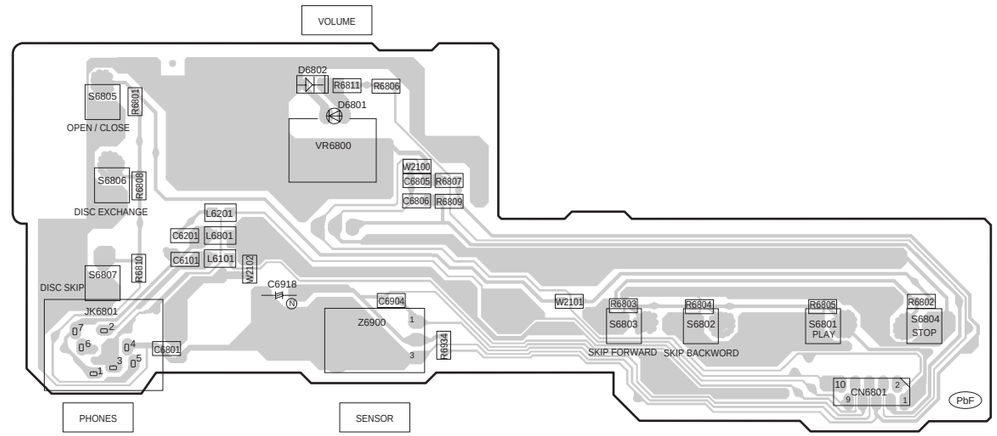
C DSP P.C.B. (REPX0335B) (SIDE:B)



D FL P.C.B. (REPX0415B)



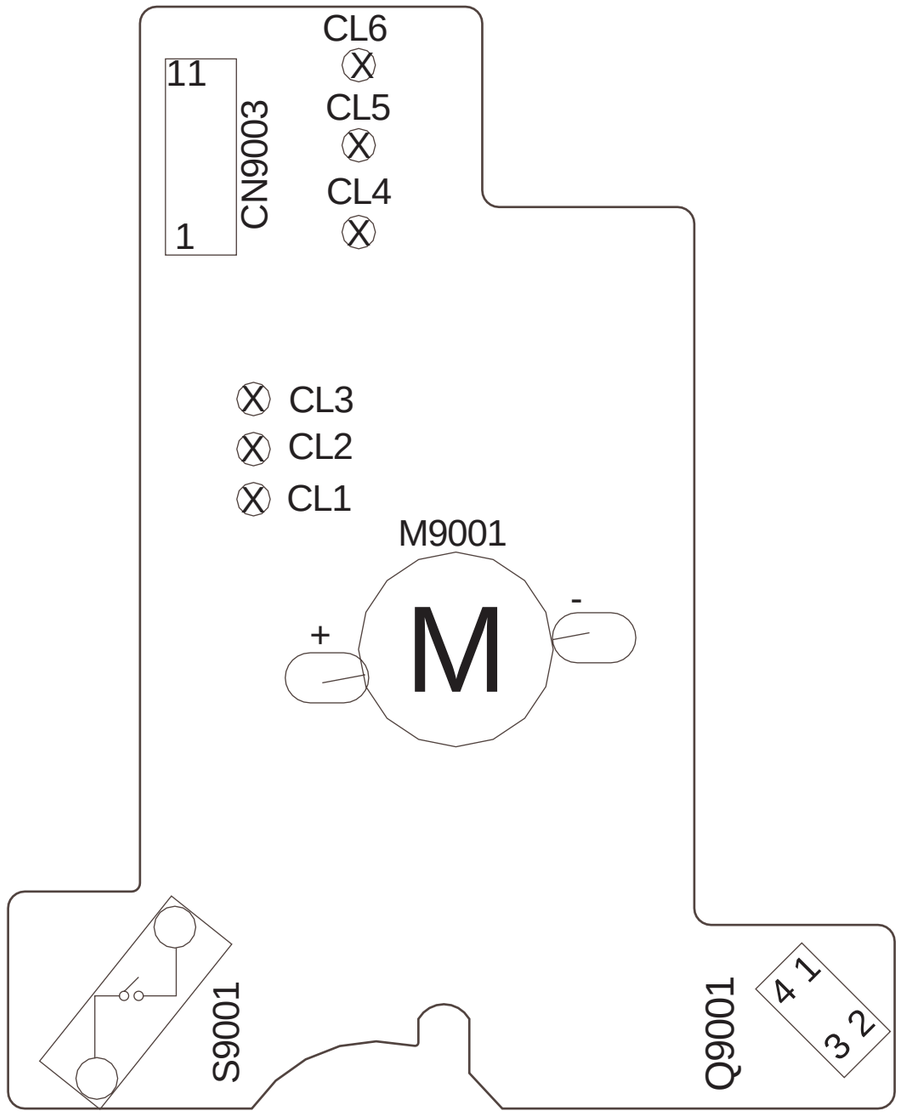
E HEADPHONE P.C.B. (REPX0415B)



A B C D E F G H I J K L M N

1 2 3 4 5 6 7 8 9

F LOADING MOTOR P.C.B.
(REP3465A)



G TRAY MOTOR P.C.B.
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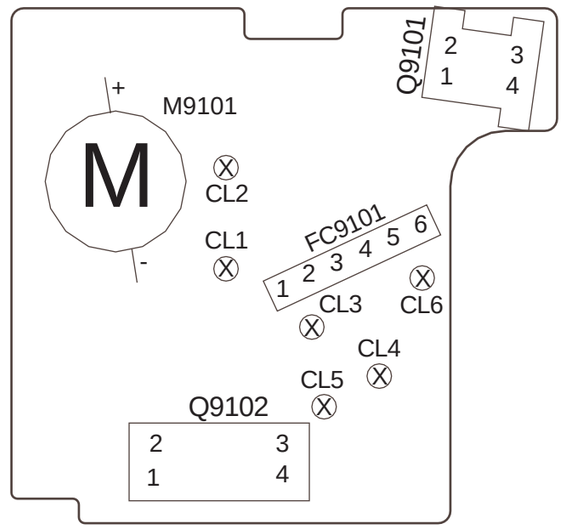

H SENSOR P.C.B.
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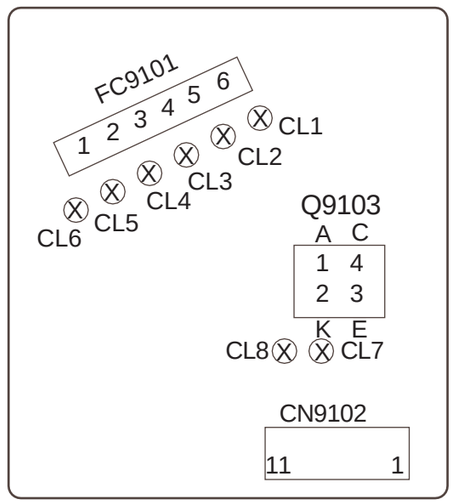
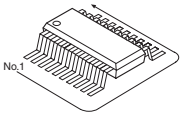
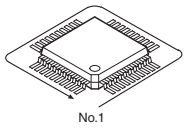


C0ABCB000052 (14p)
C0CBCBD00018 (8p)
C0JBAR000292 (16p)
C3ABPG000063 (54p)
C9ZB00000431 (34p)



C0FBBK000036 (48p)
C0HBB0000040 (48p)
C1BB00000845 (80p)
C2CBHG000137 (100p)
MN2DS0003APH (256p)



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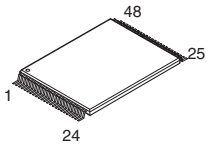

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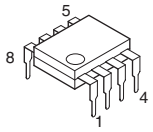

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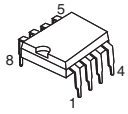

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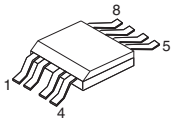

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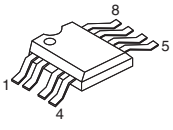

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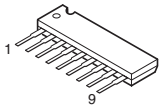

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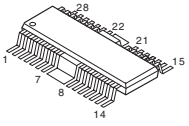

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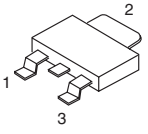

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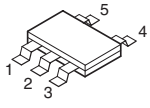

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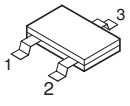

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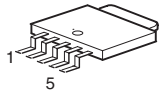

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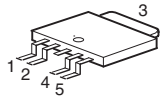

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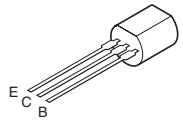

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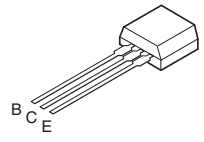

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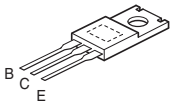

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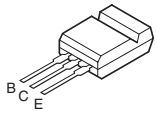

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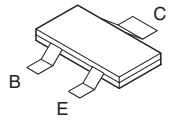

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B1ADCF000001
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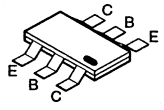
B1GFGCAA0001



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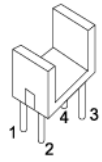

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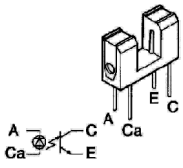

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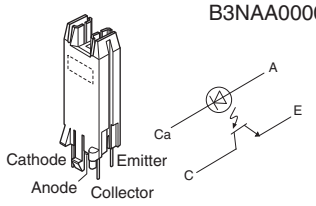

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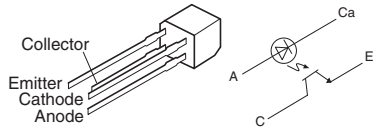

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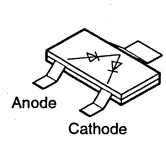

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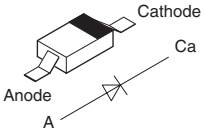

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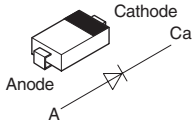

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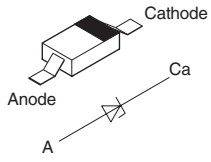

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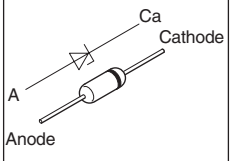

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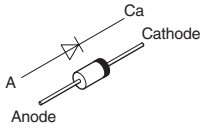

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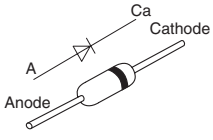

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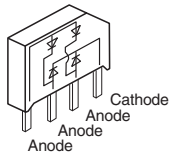

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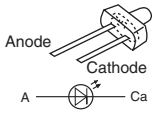

ORDER NO. MD0412576S1
A6

Service Manual

DVD HOME Theater Sound System

Supplement

SA-HT920P
SA-HT920PC

Colour

(S) ... Silver Type

Subject : Correction for P.C.B Part Number (DVD Module (1) P.C.B)

Please file and use this supplement manual together with the service manual for Model No. SA-HT920PPC-S, Order No. MD0403065C1.

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

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1.1. Component Parts List (Corrections)	1

1 Parts Location and Replacement Parts List (Update)

1.1. Component Parts List (Corrections)

With reference to (Section 25.2) on page 70 of original service manual. The following ammendment is necessary due to service manual mistake.

Before Ammendments

Ref. No.	Part No.	Part Name & Description	Remarks
		PRINTED CIRCUIT BOARD	
	REP3454G	DVD MODULE (1) P.C.B.	[M]

After Ammendments

Ref. No.	Part No.	Part Name & Description	Remarks
		PRINTED CIRCUIT BOARD	
	REP3654G	DVD MODULE (1) P.C.B.	[M] (CORRECTION)

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ORDER NO. MD0511439S1
A6

Service Manual

DVD Home Theater Sound System

Supplement

SA-HT920P
SA-HT920PC

Colour

(S).....Silver Type

Subject : IC2002 Part Change / Printed Circuit Board / Schematic Diagram / Block Diagram & Part List (Additional Repair Information)

Please file and use this supplement manual together with the service manual for Model No.SA-HT920PPC, Order No. MD0403065C1

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

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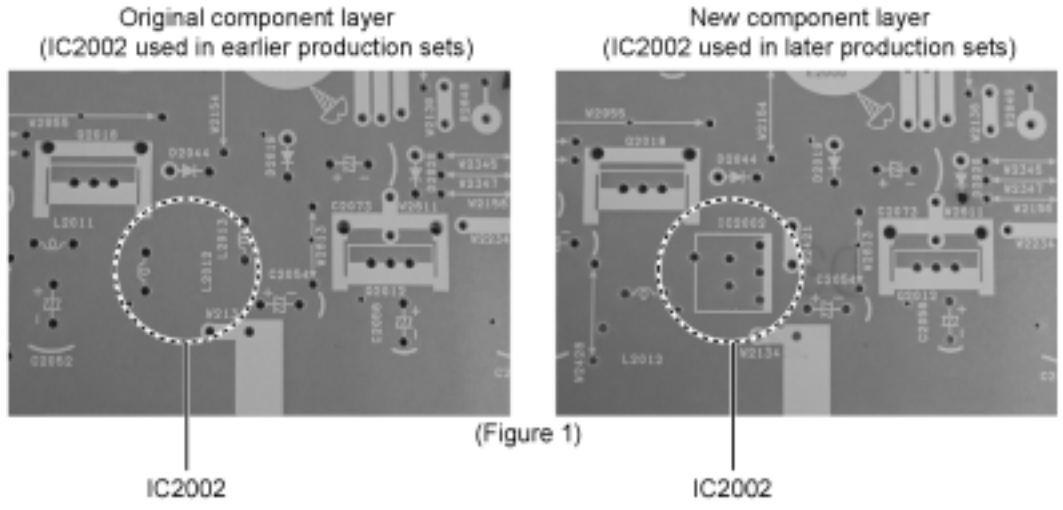
1 Notes

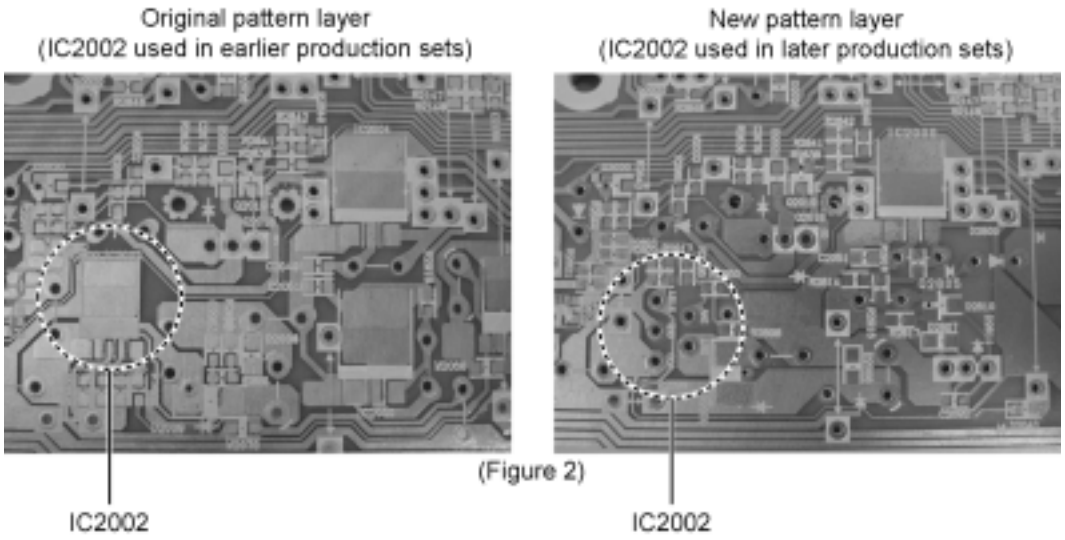
This document describes necessary service information for the mentioned models on the change of IC2002 & the modification of circuit. This IC is a DC-DC converter for power supply voltage. Following sections include information on the IC type & method to identity for service repair.

1.1. Change of IC type (IC2002)

This section describes the necessary information change of IC2002 on the Main P.C.B. Figure 1 below shows the location of IC2002 (DC-DC Converter).
Purpose : IC2002 changed from discrete type (through hole) to surface mount type (Ref to Figure 1 & 2 for diagram).
Result: this leads to modification of Main circuit (power section) & removal of parts. (section 1.3 shows the main circuit modification.
Hence it is very important that the correct type of IC is used for the correct version of Main P.C.B.



(Figure 1)



(Figure 2)

1.2. Method to identity before repair

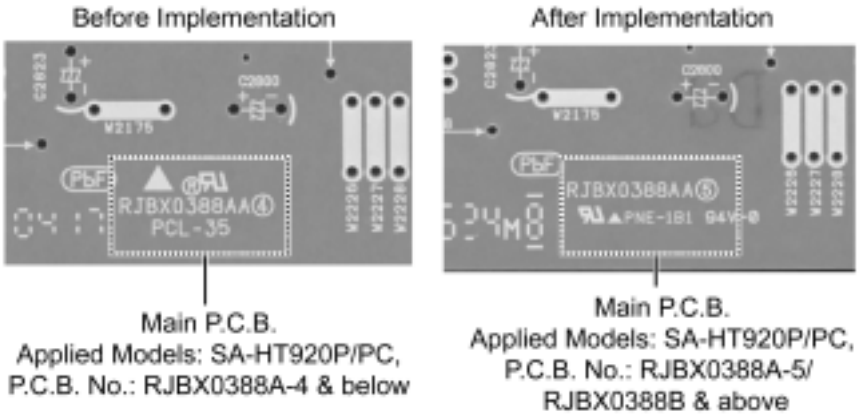
This section describes the method to ensure proper service parts replacement to be carried out accordingly.

1.2.1. To check Main P.C.B. version

・Below is the procedures to determine the version for Main P.C.B..

Step 1 : Disassemble the top cabinet.

Step 2 : Locate the part no. for Main P.C.B. at the bottom right corner.



Step 3 : Replace the IC (IC 2002) accordingly base on table 1 below.

Applied Model	IC2002 Part No	Main P.C.B. compatible	Remarks
SA-HT920P/PC	C0DBAZG00033	RJBX0388A-4 & below	[M]
	C0DAAZG00012	RJBX0388A-5 / RJBX0388B & above	[M]
Table 1			

Note:

・The above mention part number is for purpose of identifying the version of Main P.C.B. before repair.

・The correct part must be use with the correct version of Main P.C.B. (Refer to Table 1.)

・The following section (section 2 to 4) illustrate the changes.

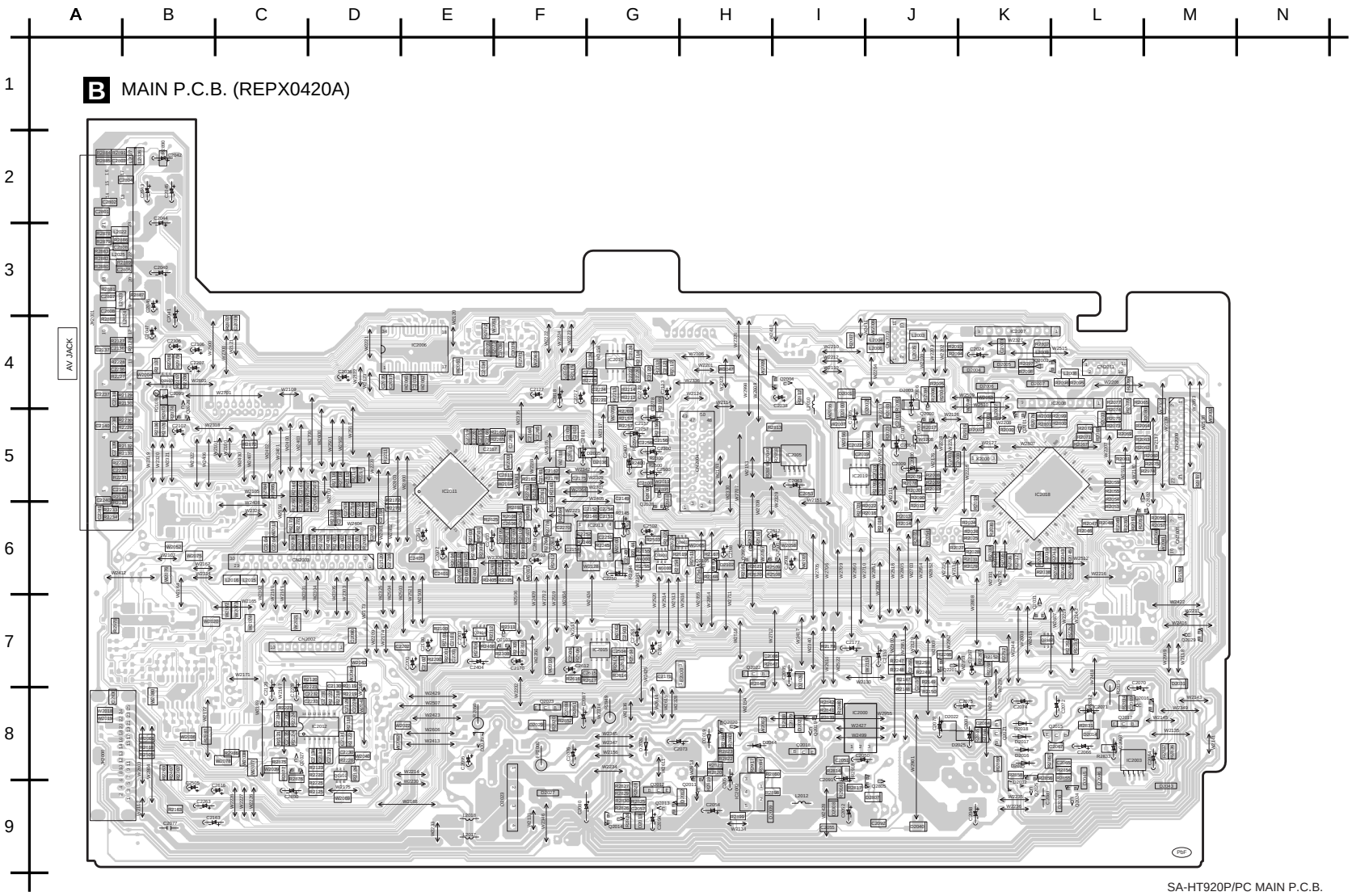
・The electrical part list change between the original & revise.

2 Printed Circuit Board Diagram (Revise)

2.1. Main P.C.B (SA-HT920P/PC)

- With reference to page 56 (section 21) for original service manual as mentioned models.
- The below Main P.C.B. applies to RJBX0388A-5 & RJBX0388B & above only. The P.C.B. part no. (complete P.C.B. with parts) remains unchanged.

B MAIN P.C.B. (REPX0420A)



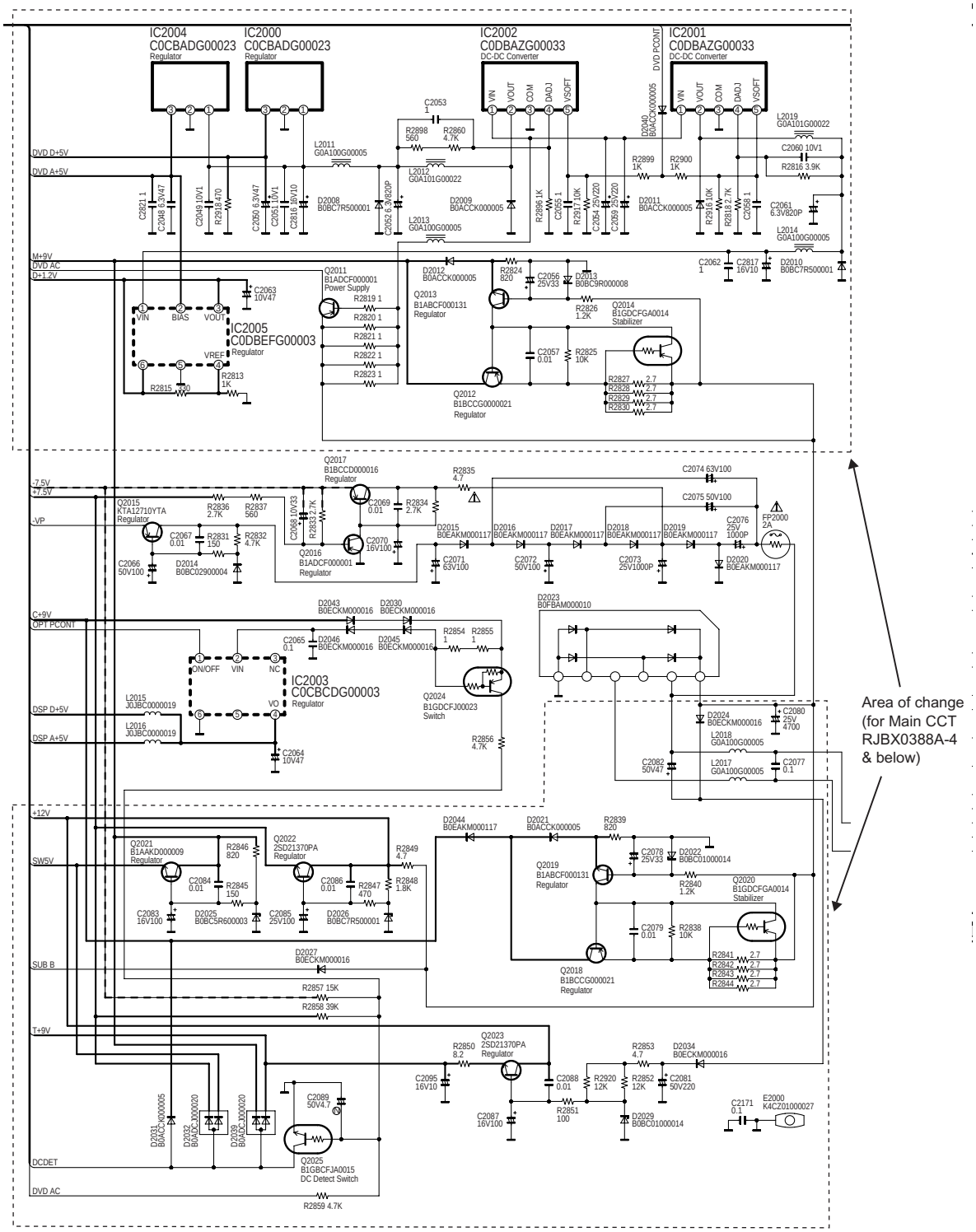
SA-HT920P/PC MAIN P.C.B.

3 Schematic Diagram (Revise)

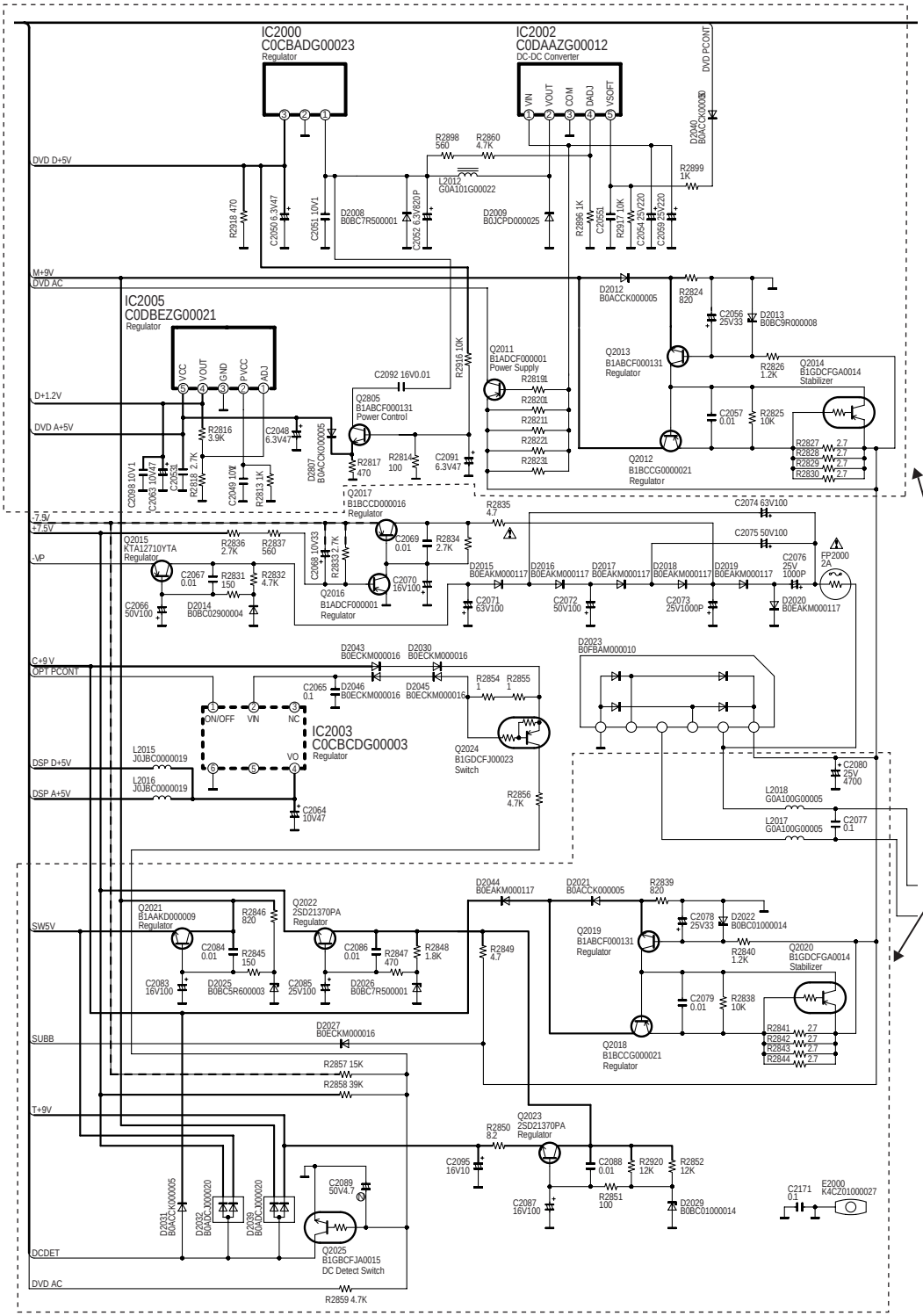
3.1. Schematic Diagram (SA-HT920P/PC)

- With reference to the schematic diagram of original service manual. This section illustrate the comparison between the original (for RJBX0388A-4 & below) & new (for RJBX0388A-5 or RJBX0388B & above).
- Schematic Diagram -6
- Scale location is A-1

Original



Revise

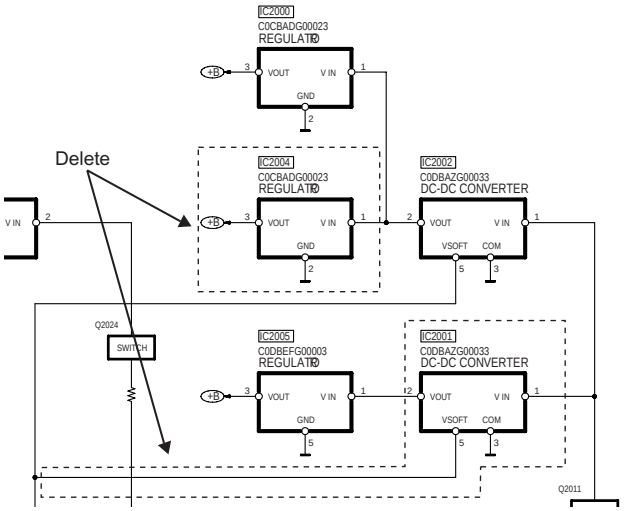

IC2000
C0CBADG00023
Regulator
IC2002
C0DAAZG00012
DC-DC Converter
VIN
VOUT
COM
DADJ
VSOFT
DVD PCONT
DVD D+5V
M+9V
DVD AC
IC2005
C0DBEZG00021
Regulator
VCC
VOUT
GND
PVCC
ADJ
D+1.2V
DVD A+5V
+7.5V
-VP
C+9V
OPT PCONT
DSP D+5V
DSP A+5V
SW5V
SUBB
T+9V
DCDET
DVD AC
IC2003
C0CBCDG00003
Regulator
ON/OFF
VIN
NC
VO
Q2805
B1ABCF000131
Power Control
Q2011
B1ADCF000001
Power Supply
Q2013
B1ABCF000131
Regulator
Q2012
B1BCCG0000021
Regulator
Q2014
B1GDCFGA0014
Stabilizer
Q2015
KTA1271OYTA
Regulator
Q2016
B1ADCF000001
Regulator
Q2017
B1BCCD000016
Regulator
Q2018
B1BCCG000021
Regulator
Q2019
B1ABCF000131
Regulator
Q2020
B1GDCFGA0014
Stabilizer
Q2021
B1AAKD000009
Regulator
Q2022
2SD21370PA
Regulator
Q2023
2SD21370PA
Regulator
Q2024
B1GDCFJ00023
Switch
Q2025
B1GBCFJA0015
DC Detect Switch
Area of change
(for Main CCT
RJBX0388A-5 or
RJBX0388B
& above)

4 Block Diagram (Revise)

4.1. Block Diagram (SA-HT920P/PC)

・Block Diagram Page 43

Original



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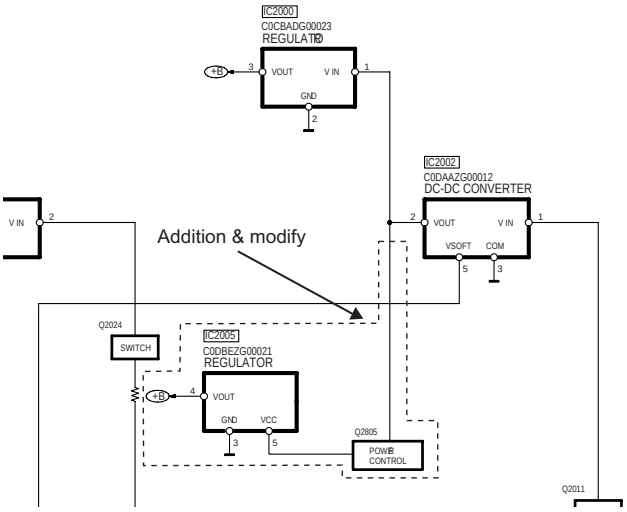

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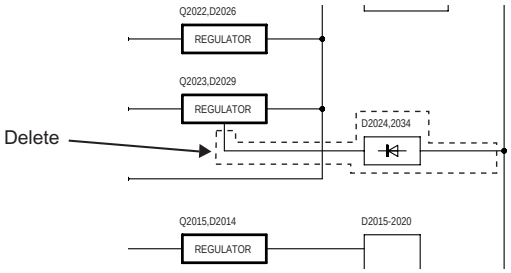

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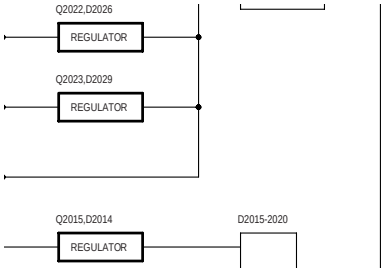

5 Part List (Revise)

・This section illustrates the changes in the electrical parts list between the original & the revised.

Please revise the original parts list in the Service Manual to conform to the change(s) shown herein.
If new part numbers are shown, be sure to use then ordering parts.

Reason for Change

*The circled item indicates the reason. If no marking, see the Notes in the bottom column.

	1. Improve performance
	2. Change of material or dimension
	3. To meet approved specification
	4. Standardization
	5. Addition
	6. Deletion
	7. Correction
●	8. Other

Interchangeability Code

**The circled item indicates the interchangeability. If no marking, see the Notes in the bottom column.

	Parts	Set Production	
	A Original →	Early	Original or new parts may be used in early or late production set. Use original parts until exhausted, then stock new parts.
	New →	Late	
	B Original →	Early	Original parts may be used in early production sets only. New parts may be used in early or late production sets. Use original parts where possible, then stock new parts.
	New →	Late	
●	C Original →	Early	New parts only may be used in early or late production sets. Stock new parts.
	New →	Late	
●	D Original →	Early	Original parts may be used in early production sets only. New parts may be used in late production sets only. Stock both original and new parts.
	New →	Late	
	E Other		

5.1. Part List (SA-HT920P/PC)

Part Number						
Model No.	Ref. No.	Original Part No.	New Part No.	Part Name & Description	Notes	Remarks
SA-HT920P/PC	D2807	-	B0ACCK000005	DIODE	8,C	[M] ADD
	Q2805	-	B1ABCF000131	TRANSISTOR	8,C	[M] ADD
	C2092	-	ECJ1VB1C103K	16V 0.01	8,C	[M] ADD
	R2814	-	ERJ3GEYJ104V	100 1/16W	8,C	[M] ADD
	R2817	-	ERJ3GEYJ471V	470 1/16W	8,C	[M] ADD
	D2010	B0BC7R500001	-	DIODE	8,D	[M] DELETE
	D2011	B0JCPD000025	-	DIODE	8,D	[M] DELETE
	IC2004	C0DBAZG00023	-	IC REGULATOR	8,D	[M] DELETE
	IC2001	C0DBAZG00033	-	IC DC-DC CONVERTER	8,D	[M] DELETE
	C2821	ECJ1VB1A105K	-	1 10V	8,D	[M] DELETE
	C2062	ECJ1VB1A105K	-	1 10V	8,D	[M] DELETE
	C2058	ECJ1VB1A105K	-	1 10V	8,D	[M] DELETE
	R2815	ERJ3GEYJ331V	-	330 1/16W	8,D	[M] DELETE
	L2019	G0A101G00022	-	COIL	8,D	[M] DELETE
	L2013	G0A100G00005	-	INDUCTOR	8,D	[M] DELETE
	L2014	RWDJ05/050	-	INDUCTOR	8,D	[M] DELETE
	L2011	RWDJ05/050	-	INDUCTOR	8,D	[M] DELETE
	D2034	B0ECKM000016	-	DIODE	8,D	[M] DELETE
	D2024	B0ECKM000016	-	DIODE	8,D	[M] DELETE
	C2081	ECA1VM221B	-	220 35V	8,D	[M] DELETE
	C2082	ECEA1HKA470I	-	47 50V	8,D	[M] DELETE
	R2853	ERD2FCVJ4R7T	-	4.7 1/4W	8,D	[M] DELETE
	IC2005	C0DBEZG00003	C0DBEZG00021	IC REGULATOR	8,C	[M] CHANGE
	C2055	ECJ1VB1C105K	ECJ1VB1C103K	1 10V	8,C	[M] CHANGE
	R2819	ERJ3GEYJ1ROV	ERJ3GEYJ102V	1 1/16W	8,C	[M] CHANGE
	R2818	ERJ3GEYJ272V	ERJ3GEYJ102V	2.7K 1/16W	8,C	[M] CHANGE
	R2852	ERJ3GEYJ123V	ERJ3GEYJ222V	12K 1/16W	8,C	[M] CHANGE
	R2813	ERJ3GEYJ102V	ERJ3GEYJ222V	1 1/16W	8,C	[M] CHANGE
	R2898	ERJ3GEYJ561V	ERJ3GEYJ471V	560 1/16W	8,C	[M] CHANGE
	R2816	ERJ3GEYJ392V	ERJ3GEYJ681V	3.9K 1/16W	8,C	[M] CHANGE
	R2916	ERJ3GEYJ103V	ERJ3GEYJ182V	10K 1/16W	8,C	[M] CHANGE
	R2920	ERJ3GEYJ123V	ERJ3GEYJ222V	12K 1/16W	8,C	[M] CHANGE
	R2917	ERJ3GEYJ103V	ERJ3GEYJ472V	10K 1/16W	8,C	[M] CHANGE
	IC2002	C0DBAZG00033	C0DAAZG00012	IC DC-DC CONVERTER	8,C	[M] CHANGE
	C2063	ECEA1AKA470B	ECA0JM471B	10V 47	8,C	[M] CHANGE
	C2048	ECEA0JKA470B	ECEA0JKA101B	6.3V 47	8,C	[M] CHANGE

・T.I. 27627 (Factory reference only)

ORDER NO. MD0405222P7
A6

Parts Change Notice

SA-HT720P
SA-HT720PC
SA-HT720GCP

Please revise the original parts list in the Service Manual to conform to the change(s) shown herein.
If new part numbers are shown, be sure to use then ordering parts.

Reason for Change

*The circled item indicates the reason. If no marking, see the Notes in the bottom column.

O	1. Improve performance	
	2. Change of material or dimension	
	3. To meet approved specification	
	4. Standardization	
	5. Addition	
	6. Deletion	
	7. Correction	
	8. Other	

Interchangeability Code

**The circled item indicates the interchangeability. If no marking, see the Notes in the bottom column.

	Parts		Set Production	
	A	Original New	Early Late	Original or new parts may be used in early or late production set. Use original parts until exhausted, then stock new parts.
	B	Original New	Early Late	Original parts may be used in early production sets only. New parts may be used in early or late production sets. Use original parts where possible, then stock new parts.
O	C	Original New	Early Late	New parts only may be used in early or late production sets. Stock new parts.
	D	Original New	Early Late	Original parts may be used in early production sets only. New parts may be used in late production sets only. Stock both original and new parts.
	E	Other		

Part Number

Model No.	Ref. No.	Original Part No.	New Part No.	Notes	Part Name & Descriptions
SA-HT720P/PC-S	IC2018	C2CBHG000137	C2CBJG000475	1,C	MICRO-PROCESSOR IC [M] (CHANGE)
SA-HT720GCPS	IC2018	C2CBJG000401	C2CBJG000475	1,C	MICRO-PROCESSOR IC [M] (CHANGE)

[M] indicates parts that are supplied by PAVCSG.

File this Parts Change Notice with your copy of the Service Manual for :

Model No. SA-HT720P/PC-S ORDER NO. MD0401026C1
Model No. SA-HT720GCPS ORDER NO. MD0403132C3

T.I No. 26540 (For Factory reference only)

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Parts Change Notice

SA-HT720P
SA-HT720PC
SA-HT720GCP
SA-HT920P
SA-HT920PC

Please revise the original parts list in the Service Manual to conform to the change(s) shown herein.
If new part numbers are shown, be sure to use then ordering parts.

Reason for Change

*The circled item indicates the reason. If no marking, see the Notes in the bottom column.

	1. Improve performance
	2. Change of material or dimension
	3. To meet approved specification
	4. Standardization
	5. Addition
	6. Deletion
O	7. Correction
	8. Other

Interchangeability Code

**The circled item indicates the interchangeability. If no marking, see the Notes in the bottom column.

	Parts		Set Production	
	A	Original New	Early Late	Original or new parts may be used in early or late production set. Use original parts until exhausted, then stock new parts.
	B	Original New	Early Late	Original parts may be used in early production sets only. New parts may be used in early or late production sets. Use original parts where possible, then stock new parts.
O	C	Original New	Early Late	New parts only may be used in early or late production sets. Stock new parts.
	D	Original New	Early Late	Original parts may be used in early production sets only. New parts may be used in late production sets only. Stock both original and new parts.
	E	Other		

Part Number

Model No.	Ref. No.	Original Part No.	New Part No.	Notes	Part Name & Descriptions
SA-HT720P/PC-S	IC8691	C0JBCA000066	C0JBAA000346	7,C	AND GATE LOGIC IC [M] (CHANGE)
SA-HT720P/PC-S	IC8695	C0JBCA000066	C0JBAA000346	7,C	AND GATE LOGIC IC [M] (CHANGE)
SA-HT720GCPS	IC8691	C0JBCA000066	C0JBAA000346	7,C	AND GATE LOGIC IC [M] (CHANGE)
SA-HT720GCPS	IC8695	C0JBCA000066	C0JBAA000346	7,C	AND GATE LOGIC IC [M] (CHANGE)

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Part Number					
Model No.	Ref. No.	Original Part No.	New Part No.	Notes	Part Name & Descriptions
SA-HT920P/PC-S	IC8691	C0JBCA000066	C0JBAA000346	7,C	AND GATE LOGIC IC [M] (CHANGE)
SA-HT920P/PC-S	IC8695	C0JBCA000066	C0JBAA000346	7,C	AND GATE LOGIC IC [M] (CHANGE)
[M] indicates parts that are supplied by PAVCSG.					

File this Parts Change Notice with your copy of the Service Manual for :

Model No. SA-HT720P/PC-S	ORDER NO. MD0401026C1
Model No. SA-HT720GCPS	ORDER NO. MD0403132C3
Model No. SA-HT920P/PC-S	ORDER NO. MD0403065C1

T.I No. 25840 (For Factory Reference Only)

Parts Change Notice

SA-HT720P
SA-HT720PC

Please revise the original parts list in the Service Manual to conform to the change(s) shown herein.
If new part numbers are shown, be sure to use then ordering parts.

Reason for Change

*The circled item indicates the reason. If no marking, see the Notes in the bottom column.

	1. Improve performance
	2. Change of material or dimension
	3. To meet approved specification
	4. Standardization
	5. Addition
	6. Deletion
O	7. Correction
	8. Other

Interchangeability Code

**The circled item indicates the interchangeability. If no marking, see the Notes in the bottom column.

	Parts		Set Production	
	A	Original New	Early Late	Original or new parts may be used in early or late production set. Use original parts until exhausted, then stock new parts.
	B	Original New	Early Late	Original parts may be used in early production sets only. New parts may be used in early or late production sets. Use original parts where possible, then stock new parts.
O	C	Original New	Early Late	New parts only may be used in early or late production sets. Stock new parts.
	D	Original New	Early Late	Original parts may be used in early production sets only. New parts may be used in late production sets only. Stock both original and new parts.
	E	Other		

Part Number

Model No.	Ref. No.	Original Part No.	New Part No.	Notes	Part Name & Descriptions
SA-HT720P/PC-S	D2009	SM30A	B0JCPD000025	7,C	DIODE [M] (CHANGE)
SA-HT720P/PC-S	D2011	SM30A	B0JCPD000025	7,C	DIODE [M] (CHANGE)

[M] indicates parts that are supplied by PAVCSG.

File this Parts Change Notice with your copy of the Service Manual for :

Model No. SA-HT720P/PC-S ORDER NO. MD0401026C1

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Parts Change Notice

SA-HT720P
SA-HT720PC
SA-HT720GCP

Please revise the original parts list in the Service Manual to conform to the change(s) shown herein.
If new part numbers are shown, be sure to use then ordering parts.

Reason for Change

*The circled item indicates the reason. If no marking, see the Notes in the bottom column.

O	1. Improve performance	Improvement on sound performance
	2. Change of material or dimension	
	3. To meet approved specification	
	4. Standardization	
	5. Addition	
	6. Deletion	
	7. Correction	
	8. Other	

Interchangeability Code

**The circled item indicates the interchangeability. If no marking, see the Notes in the bottom column.

	Parts		Set Production	
	A	Original New	Early Late	Original or new parts may be used in early or late production set. Use original parts until exhausted, then stock new parts.
	B	Original New	Early Late	Original parts may be used in early production sets only. New parts may be used in early or late production sets. Use original parts where possible, then stock new parts.
O	C	Original New	Early Late	New parts only may be used in early or late production sets. Stock new parts.
	D	Original New	Early Late	Original parts may be used in early production sets only. New parts may be used in late production sets only. Stock both original and new parts.
	E	Other		

Part Number

Model No.	Ref. No.	Original Part No.	New Part No.	Notes	Part Name & Descriptions
SA-HT720P/PC-S/GCPS	C2220	ECUV1C104KBV	ECJ1VB1A124K	1,C	0.1uF 50V [M] (CHANGE)
SA-HT720P/PC-S/GCPS	C2219	ECUV1C104KBV	ECJ1VB1A124K	1,C	0.1uF 50V [M] (CHANGE)
SA-HT720P/PC-S/GCPS	C2166	ECUV1C104KBV	ECJ1VB1A124K	1,C	0.1uF 50V [M] (CHANGE)
SA-HT720P/PC-S/GCPS	C2165	ECUV1C104KBV	ECJ1VB1A124K	1,C	0.1uF 50V [M] (CHANGE)
SA-HT720P/PC-S/GCPS	C2265	ECJ1VB1H472K	ECJ1VB1H272K	1,C	2700P 50V [M] (CHANGE)
SA-HT720P/PC-S/GCPS	C2164	ECJ1VB1H472K	ECJ1VB1H272K	1,C	2700P 50V [M] (CHANGE)

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Part Number					
Model No.	Ref. No.	Original Part No.	New Part No.	Notes	Part Name & Descriptions
SA-HT720P/PC-S/GCPS	R2265	ERJ3GEYJ472V	ERJ3GEYJ682V	1,C	6.8K 1/16/W [M] (CHANGE)
SA-HT720P/PC-S/GCPS	R2165	ERJ3GEYJ472V	ERJ3GEYJ682V	1,C	6.8K 1/16W [M] (CHANGE)
SA-HT720P/PC-S/GCPS	R2318	ERJ3GEYJ473V	D0GB273JA002	1,C	27K 1/16W [M] (CHANGE)
SA-HT720P/PC-S/GCPS	C2607	ECJ1VB0J474K	F1H1A334A025	1,C	0.33uF 10V [M] (CHANGE)
SA-HT720P/PC-S/GCPS	C2606	ECJ1VB0J474K	F1H1A334A025	1,C	0.33uF 10V [M] (CHANGE)
SA-HT720P/PC-S/GCPS	R2320	ERJ3GEYJ223V	ERJ3GEYJ103V	1,C	10K 1/16W [M] (CHANGE)
SA-HT720P/PC-S/GCPS	R2322	D0GB333JA002	ERJ3GEYJ223V	1,C	22K 1/16W [M] (CHANGE)
SA-HT720P/PC-S/GCPS	R2402	ERJ3GEYJ103V	ERJ3GEYJ682V	1,C	6.8K 1/16W [M] (CHANGE)
SA-HT720P/PC-S/GCPS	R2302	ERJ3GEYJ103V	ERJ3GEYJ682V	1,C	6.8K 1/16W [M] (CHANGE)
SA-HT720P/PC-S/GCPS	R2608	D0GB683JA002	ERJ3GEYJ823V	1,C	82K 1/16W [M] (CHANGE)
[M] indicates parts that are supplied by PAVCSG.					

File this Parts Change Notice with your copy of the Service Manual for :

Model No. SA-HT720P/PC-S ORDER NO. MD0401026C1
Model No. SA-HT720GCPS ORDER NO. MD0403132C3

T.I No. 25955 (For Factory Reference Only)

ORDER NO. MD0410515P1

A6

Parts Change Notice

SA-HT920P

SA-HT920PC

Please revise the original parts list in the Service Manual to conform to the change(s) shown herein.

If new part numbers are shown, be sure to use then ordering parts.

Reason for Change		
*The circled item indicates the reason. If no marking, see the Notes in the bottom column.		
O	1. Improve performance	
	2. Change of material or dimension	
	3. To meet approved specification	
	4. Standardization	
	5. Addition	
	6. Deletion	
	7. Correction	
	8. Other	

Interchangeability Code

**The circled item indicates the interchangeability. If no marking, see the Notes in the bottom column.

	Parts		Set Production	
	A	Original New	Early Late	Original or new parts may be used in early or late production set. Use original parts until exhausted, then stock new parts.
	B	Original New	Early Late	Original parts may be used in early production sets only. New parts may be used in early or late production sets. Use original parts where possible, then stock new parts.
O	C	Original New	Early Late	New parts only may be used in early or late production sets. Stock new parts.
	D	Original New	Early Late	Original parts may be used in early production sets only. New parts may be used in late production sets only. Stock both original and new parts.
	E	Other		

Part Number						
Model No.	Ref. No.	Original Part No.	New Part No.	Notes	Part Name & Descriptions	Remarks
SA-HT920P/PC-S	IC2018	C2CBJG000404	C2CBJG000474	1,C	IC SYSTEM CONTROL	CHANGE [M]
[M] indicates parts that are supplied by PAVCSG.						

File this Parts Change Notice with your copy of the Service Manual for :

Model No. SA-HT920P/PC-S ORDER NO. MD0403065C1

T.I No. 26540 (For Factory Reference only).

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